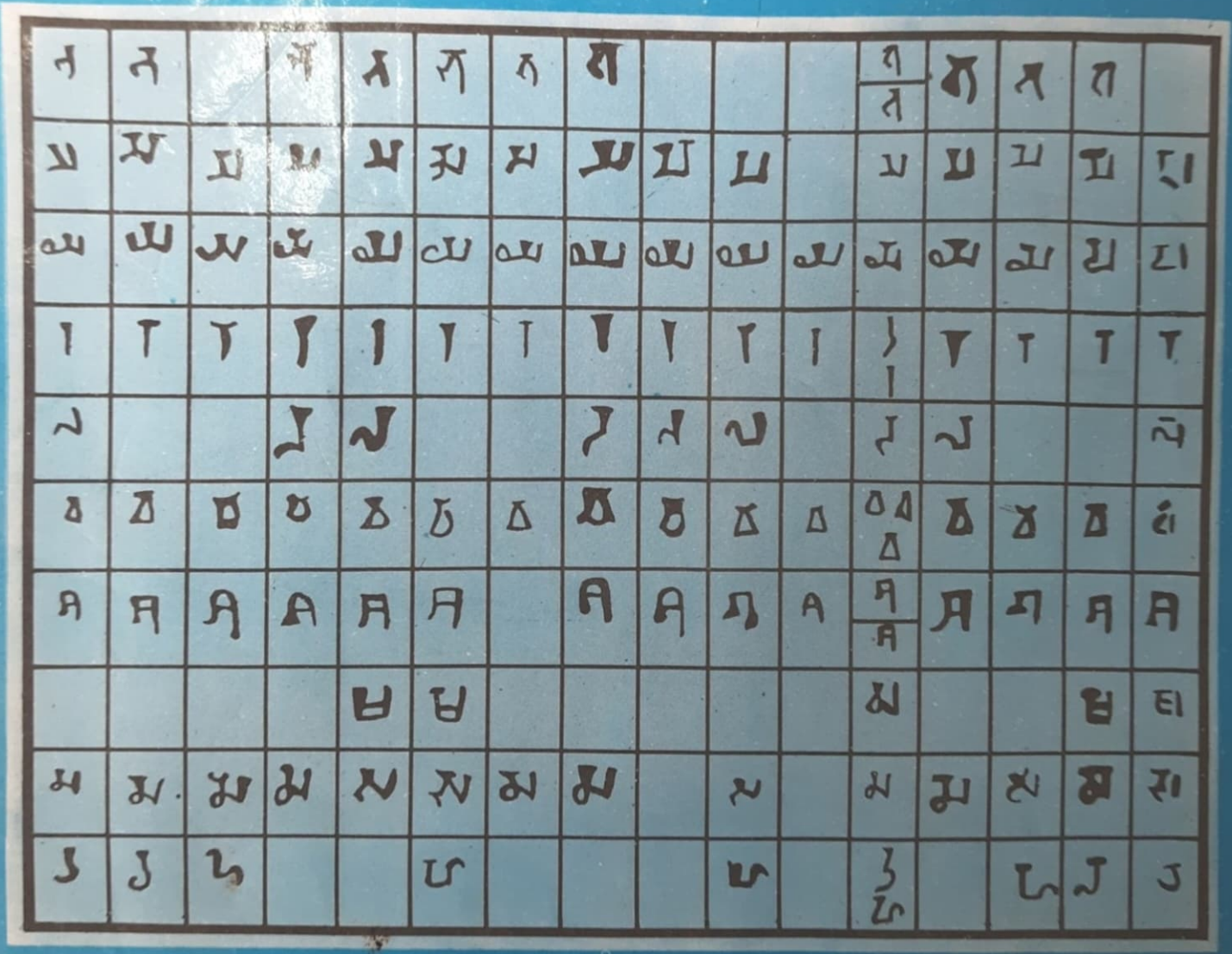
THE DEVELOPMENT OF IMPERIAL GUPTA BRĀHMĪ SCRIPT



Ed.-Dr. T.P. VERMA

The palaeographic study of the script used in North India during the period of Imperial Guptas is the subject matter of the present work. This script was derived from the Brāhmī script used in the majority of the Edicts of Asoka and developed during the later seven centuries.

Three sections are identified for the study. Inscriptions on stone, terracottas and copper-plates from the major section. Coin legends have been treated separately. Similarly the numerals have also been given separate treatment.

The text contains the background tracing the developmental stages of Brāhmī script from the time of Asoka; Inscriptions from, North Indian style : Kausambi region; Eastern Indian style : Region of Bengal and Bihar; Western style : Mathura region; Malwa style : Madhya Bharata; and also script on coins and numerals. As regards the arrangement of plates the method evolved by Dr. T.P. Verma (B.H.U.) has been followed.

ISBN : 81-85205-68-X

S-(1)
V

45
50
CE

V2:720bP
N8S;2
921972
Srivastava, Anupama
Development of imperial Gupta Brāhmī script

this volume on or before the date
mped. Overdue volume will be
rged @ One Rupee per day. One Rupee

Please return this volume on or before the date last stamped. Overdue volume will be charged @ One Rupee per day.

24-03-14	190318
7-07-14	020425
14-04-15	
15-06-15	
25-08-15	
13-10-15	
16011[illegible]	

THE HERITAGE OF ANCIENT INDIA
No. XXXV

The Development of Imperial Gupta Brāhmī Script

921972

BBS
DATABASE

THE DEVELOPMENT OF IMPERIAL GUPTA BRĀHMĪ SCRIPT

By

Dr. Anupama Srivastava

Edited by

Dr. T.P. Verma

Forward

Prof. A.K. Narain

B. H. U. LIBRARY
Acc 921972
Date 23/1/01

1998

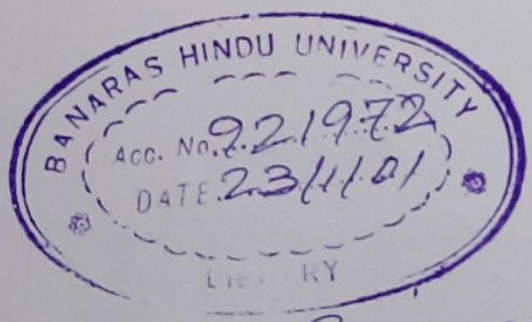
Ramanand Vidya Bhawan

SPEC
66

Published by:
Ramanand Vidya Bhawan
J-3/227 D.D.A. Flats,
Kalkaji,
New Delhi 110 019.

V2:720bP
N85;2

© The Author



Rs. 950/-

Typeset at:
TYPOGRAPHICAL COMPUTERS
J-3/242 D.D.A. Flats, Kalkaji,
(Near Alaknanda Market), New Delhi 110 019.

Dedicated

to

My Parents

CONTENTS

Preface		
List of Inscriptions		
Abbreviations		
CHAPTER I	INTRODUCTION	1
CHAPTER II	NORTH INDIAN STYLE : KAUSAMBI REGION	16
CHAPTER III	EASTERN INDIAN STYLE : REGION OF BENGAL AND BIHAR	34
CHAPTER IV	WESTERN STYLE : MATHURA REGION	42
CHAPTER V	MALWA STYLE : MADHYA BHARATA	50
CHAPTER VI	SCRIPT ON COINS	65
CHAPTER VII	NUMERALS	75
CHAPTER VIII	RESUME	80
Bibliography		82
Plates	Ia-LXII	

EDITOR'S PREFACE

Palaeography, the study of ancient scripts in India is comparatively a recent branch of study. Indians had lost their academic connections with the ancient scripts. With some efforts a few pandits could read the epigraphs of mediaeval period only. Actually the Indian scholarly world was not very much interested in the past history in the sense the European scholarship was. They were content with what the puranas and epics had narrated as history. But when Europeans came and subjugated parts of this country they started probing into its past. On 15th January 1784 the Asiatic Society of Bengal was established in Calcutta to coordinate the individual efforts of scholars in the field of Indology. The scholars, interested in Indian epigraphy and palaeography, used this forum to exchange the results of their researches and ideas. This can be considered as the starting point of palaeographic studies.

The first stage commences with the efforts of actual decipherment of epigraphs. In the year 1785 Pt. Radhakant Sharma deciphered three inscriptions of the Chahman king Visaldeva (Vigraharaj IV) of Ajmer, engraved on the Delhi-Tpora pillar of Asoka; one of which was dated in VS 1220 (AD 1277). In the same year Charls Wilkins read the Badal pillar inscription (in the Dinajpur district of undivided Bengal) of Pala king Narayanapala. These inscriptions could be deciphered without much difficulty because their script was somewhat akin to the Nagari script and language was Sanskrit.

Some other scholars were engaged in search of inscriptions in other parts of the country. Between 1818 and 1823 Colonel James Tod collected a good number of epigraphs from Madhya Pradesh, Rajasthan

and Gujrat area and could decipher some of them with the help of his guru Yati Jnanachandra and published their summary or translation in his book *Rajasthan*. These inscriptions belonged to 7th through 15th century.

In the southern part of the country also some scholars were working in this field. In 1833 Walter Elliot prepared and published a comparative table of older form of Kannada alphabet. Next year Babington published his table of alphabets of Sanskrit and Tamil inscriptions discovered at Mamallapuram, on which he was working since 1828.

J.H. Harrington is credited to have discovered the Nagarjuni and Barabar hill cave inscriptions of the Maukhari king Anantvarman as early as 1785. The script of these epigraphs belonged to the Gupta period and hence their decipherment was more challenging. But Charls Wilkins worked on them from 1785 till 1789 and was able to identify almost half of the Gupta alphabet. In 1834 Captain Troyer was able to read some parts of the Allahabad pillar inscription of Samudragupta. Dr. Mill was more successful in dsciphering this epigraph in the same year. He could read the Bhitari pillar inscription of Skandagupta in 1837. But James Prinsep was more successful in deciphering the Gupta pillar inscriptions from Delhi, Kahaum, Eran, Girnar rock and Amaravati stupas. Thus with the efforts of these scholars the incomplete Gupta alphabets, left by Charls Wilkins, was recovered and table prepared.

But the main challange was with the earliest script in which, it was later found, the edicts of Asoka were written, now known as Brahmi. The letters of Brahmi are simple geometrical signs like hook, angle, triangle, circle etc. which early Europeans confused with Greek letters. An European traveller mistook the edict of Asoka on Delhi pillar as belonging to Alexander. He told more than one people that Alexander came to Delhi, defeated Poras, the king of India and established a large pillar in memory of his victory. Some earlier scholars also were under this impression. Here again the efforts of Prinsep were successful. He collected the impressions of the pillar inscriptions of Radhia, Mathia and Allahabad and compared

them word by word from that of Delhi pillar inscription with a hope to find some words common in them. To his surprise he discovered that all the four epigraphs were identical. He analysed and classified individual letters and found that the application of five medial vowels on some letters was based on the same principle it was applied to the Gupta alphabets. Then he started listing the Asokan alphabets which were similar to those of the Guptas. Thus he was able to identify majority of letters. The table prepared by him was later found to be correct except the sign for u and o. In the same way Father James Stevenson recognised signs for ka, ja, pa and ba. But he could not made much progress in deciphering Brahmi partly because the alphabet was incomplete and partly he mistook the language of the epigraphs to be Sanskrit. In 1836 Lassen could identify the name of Indo-Greek king Agathocles in Brahmi in his bilingual coin. Next year Prinsep was successful in identifying the letters *da*, and *na*, and thus the credit to complete the Brahmi *varnamala* goes to him.

This facilitated the decipherment of the Asokan inscriptions from Allahabad, Sanchi, Mathura, Radhia, Girnar and Dhauli, etc. This proved that the language of these epigraphs was not Sanskrit but local Prakrit. This also established that the Brahmi was the earliest script from which all later Indian scripts evolved and all of them were following the same principle. But the most important thing which Prinsep did not fail to notice was that "The table (prepared by him) furnishes a curious species of palaeographic chronometer; by which an ancient monument may be assigned with considerable accuracy to the period at which it was written, even though it possesses no actual date."

Dani holds that 'With James Prinsep the first stage of Indian palaeography closes and its second stage begins.' But the 'palaeographic chronometer perception of James Prinsep dominated the second stage'

The second stage is marked by the publications of newly discovered epigraphs and studies in palaeography and epigraphy. Thus it became a recognised subject. The first book in palaeography was published in 1874

by A.C. Burnell on South Indian palaeography. Cunningham published the inscriptions of Asoka in 1877. James Burgess also worked on Western Indian inscriptions and published them in 1883. J.F. Fleet's work on inscriptions of the Guptas and their contemporaries came out in 1888. Pt. Gaurishankar Hirachandra Ojha published a book in Hindi in 1894 entitled *Bharatiya Prachina Lipimala* (*The Palaeography of India*). Revised and enlarged in 1918 it was the first scholarly work in Hindi for which many a European scholars learned Hindi. Three German scholars also contributed in the field. Ernst Hultzsch presented his studies in South Indian palaeography in his work *South Indian Inscriptions*. Rudolf Hoernle analysed the writing of Bower Ms. But the most precious contribution in the field was the work of George Buhler in 1896. This was considered the monumental work on Indian Papaeography. He utilised all the material available and summarised the views of scholars of his time with complete charts of Brahmi and Kharishthi alphabets in chronological order.

With Buhler the second phase of palaeographic studies was complete. As foreseen by James Prinsep and recognised by all other scholars the Brahmi letters evolved in form in the course of time. The gradual modification of the outer form of the alphabets was supposed to serve as a 'time-scale'. In a limited sense it is true. By a proper assesment of the modification of these forms one can assess the rough time of the writing of these records as well as the antiquity of the object or monument on which the inscription was found. Thus in the Indian writing systems, Brahmi and its off-shoots, Indilogists found an important instrument to reconstruct the chronology of ancient India. They realised the necessacity of reproducing the characters as accurately as possible. Buhler says in his concluding remark that 'I have been able to illustrate most of the Indian alphabets by cuttings from facsimilis, instead of hand-drawn signs'. This shows the importance attached to the accurate form of the letters. As early as 1883 James Burgess laments that 'little progress towards scientific accuracy' has been made in the field of 'comparative palaeography', which can be used with 'full confidence as a safe guide to chronology'.

Writing about the nineteenth century scholars A.H. Dani observes that "For scholars of that period the outward forms were end in themselves, and their analysis and classification was the best that they could hope for. This was the reason why great stress was laid on the accurate coppying of each and every letter occuring in different inscriptions". This tendency dominated the study of Indian palaeography even till the middle of the twenteeth century. Van Lohuizen De Leeuw, in her work *The Scythean Period* (1949), has tried to trace the development of Brahmi script of the Kushana period on the basis of the degree of the bending of *u* medial in *ku* and the length of the subscript and consonant *ya*. These scholars failed to realise that these inscriptions were not written by mechanical means and therefore reaching on any result by such a mechanical comparisions would bring faulty results. Dani observes that her 'assumption fails miserably when applied to a wider horizon and tested by comparative materials from the other regions'. Thus the idea of 'mechanical' or socalled 'scientific accuracy' persisted till the middle of this century, which was supposed to serve two purposes: one, to provide table of alphabets for further researchers and, two, to serve as 'handy time-scale'

Dani holds that 'the third stage in the study of Indian palaeography begins from the close of the nineteenth century, when the Government of India started to issue regular volumes of *Epigraphia Indica*.' In the same way in Ceylone and in South-East Asian countries also such publications on epigraphy started pouring in immense material. Although in most of them there used to be an introductory paragraph on palaeography these cannot be considered as studies in palaeography. Dani himself observes that 'through all these publications Buhler's method has remained the standard' He further holds that 'I have not been able to detect any new angle of study in any of these writings'. Thus from the point of view of palaeographic studies the second and the third stages can be combined together because the methodology of Buhler dominated the scene during this period.

With Dani starts a new phase in the study of Indian palaeography. His

work *Indian Palaeography* was published in 1963 in which he came out with new ideas. He visualised the hand of tradition and culture in the development of the art of writing. He maintains:

"Palaeography is not confined to the study of shapes of letters in the abstract. I have endeavoured to go beyond the mere shapes and search for different traditions which govern a type following a set pattern on account of particular techniques. Writing is thus treated as an art resulting from a given culture. The different styles are only different traits in a cultural complex, and their analysis not only enables us to fix the type of writing that was prevalent at a particular period and in a particular place, but also provides us a clue to the understanding of the culture within which the writing operated. It is only in the background of the cultural evolution that the writing styles can be properly followed and changes in them adequately explained. In the absense of this understanding the letters become mere shapes produced whimsically at random, but that is hardly true of any system of writing. The letter forms are aprt of a culture, and palaeography defines them within that culture."

Dani worked on a broader canvas of Indian palaeography, i.e. from the beginning to the 8th century AD for Brahmi and also for the Kharoshthi script. About the same time or a little earlier Dr. C.S. Upasak published his work *History and Palaeography of the Mauryan Brahmi Script*. But his treatment is a bit different. Although he could not realise the importance of tradition and culture in the development of writing he differed from the earlier palaeographers in the sense that he maintained that there are no regional variations in the Asokan Brahmi and it is same throughout the continent. I took the post-Mauryan period for study and published it in 1971 *The Palaeography of Brahmi Script in North India* (*From 236 B.C. to 200 A.D.*,) As a faculty member of the Banaras Hindu University at Varanasi I evolved a more scientific system for preparing tables of the alphabets. This was used for the first time in my work *Development of Script in Ancinet Kamrup*, 1976. This methodology was again used in my paper 'Progress of Modification of the Alphabet as Revealed by Coins.

Seals and Inscriptions from Mathura' in *Mathura : The Cultural Heritage* 1989. In the mean time the Ph.D. scholars registered under my supervision and working on Indian palaeography also adopted this m thodology. Following have so far earned their Ph.D. degrees from Banaras Hindu University.

1. Dr. O.P.L. Srivastava, उत्तर भारत में अंकों का विकास (published).
2. Dr. Sheela Srivastava, गुजरात क्षेत्र में लिपियों का विकास (under publication).
3. Dr. Arvind Kumar Srivastava, *Development of Nagari Script* (published).
4. Dr. Jeevan Upadhyaya, *Development of Sarada Script* (under publication).
5. Dr. Thai Van Chai, *Palaeographic Study in Inscriptions from Indo-China* (from I to X century A.D.) (unpublished).
6. Dr. Anupama Srivastava, *The Development of Brahmi Script from the Inscriptions of Gupta Priod in North India* (under publication) [under Prof. P. Singh, B.H.U.]
7. Km. Sita Mahalakshmi, *Palaeographic Study of Satavahana Inderiptions and Coins* (under preparation).
8. Rev. Anguligaha Dhamminda (Sri Lanka), *Palaeographic Study of Script of Sri Lanka* (under preparation).

In the present series three works, Nos. 2, 4 and 6 are being published by M/s. Ramanand Vidya Bhawan, New Delhi. I am thankful to Dr. S.B. Singh, the propritor, for his excellent job.

Thus a tradition of palaeographic study is developing, and it can be hoped that it will decide the future trends in further palaeographic studies.

Varanasi.
Varsha Pratipada, Sam. 2054 T. P. Verma
April 8, 1997.

FOREWORD

It is indeed heartening to find a tradition, if not a definitive school of palaeographical studies developing at the Banaras Hindu University during the past four decades. The trend was set by works in the sixties produced by two former B.H.U. scholars C.S. Upasak (*The History and Palaeography of Mauryan Brahmi Script*, Nalanda 1960) and A.H. Dani (*Indian Palaeography,* Oxford 1963). Both these works were produced by their authors during their stay in London at the School of Oriental and African Studies. Because of my own association with both these authors and the two institutions, I visualised the need of a systematic and thorough periodwise study of early Indian palaeography based on fresh research. And during my tenure at Banaras Hindu University I encouraged my research students to examine the development of early Indian scripts, particularly Brahmi to start with, of speciphic historical periods and cultural regions. T.P. Verma was the first to fall in line. He selected the post-Mauryan period. His work entitled *The Palaeography of Brahmi Script in North India* was published in 1971 from Varanasi. Since then T.P. Verma has continued the tradition by not only contributing further in the subject (see his publications on Scripts of ancient Kamrup (1976), Mathura Inscriptions (1989) but also by assigning and encouraging his research students to do work in other periods and regions of South Asia and even South-East Asia. The result has been the dissertations of O.P.L. Srivastava (*Uttar Bharat men Ankon ka Vikas* in Hindi, 1986), A.K. Singh (*Development of Nagari Script,* 1991), Jeevan Upadhyaya (*Sarada Script,* 1997), Sheela Srivastava (*Gujarat Kshetra men Lipiyon ka Vikasa,* 1997) and now the present work by Anupama Srivastava *nee* Verma on the *Brahmi Script of the Gupta period in North India.*

But, before I come to the present work let me also take this opportunity to add to the list given above the following works on palaeography produced by B.H.U. faculty : Raj Bali Pandey (*Indian Palaeography*, Varanasi 1957). Jointly with T.P. Verma I, too, published a little introductory work in Hindi (*Prachina Lipisastra aur Abhilekhaki* 1970) to popularise the subject among undergraduate students. Apart from these, it is worth recalling the painstakaing investigations, though unsuccessful in terms of acceptable results, of Pran Nath on the Indus Valley Script. I understand that currently research scholars under T.P.Verma are engaged in working on the development of script of Satavahanas, in Vietnam and Sri Lanka.

Of the two ancient historical scripts, Brahmi and Kharosthi, created by Asoka, the former was used since then not only all over South Asia but also outside of it to give rise in due course to most of the present-day scripts of Asia. Brahmi thus went through stages of development during the past twenty-three centuries in a vast span of Asian earth and provides one of the most potent examples of change and progress. It is a story of continuity where the new appears but the old does not die. The present study of Dr. (Mrs.) Anupama Srivastava *nee* Verma is an episode of this story of Asian History.

Anupama Srivastava has wisely avoided the dynastic lebel "Gupta Brahmi" as used by earlier scholars and opted for the long but more correct title for her work, `The Development of Brahmi Script from the Inscriptions of the Gupta Period in North India'. This defines exactly the parameters of her research. She has meticulously taken stock of the entire bulk of epigraphic material of the relevant period of time and span of space and divided them into three sections, which include coin-legends and numerals. The last category, one might think, could have been separated and dealt with independently as an appendix. For it is a moot point whether or not Indian numerals are "scripts" *per se* as in the case with Greek or Roman. But for the sake of thoroughness in dealing with the complete corpus of her material it was fair to treat them as one of her sections.

The old classification of the so-called "Gupta Script" into "Northern" and Southern" or "Eastern" and "Western" is no more valid. Anupama has rightly classified it now into five regional styles : North India, with its centre at Kausambi, which includes the most well-known Allahabad Pillar inscription of Samudragupta as among the earliest; Eastern India, dealing with inscriptions of Bengal and Bihar; Western style, with its centre at Mathura; Malwa style of Madhya Bharat, and fifth, the style as represented by inscriptions on the gold coins of the Imperial Guptas. The regional classification of style is not one hundred per cent perfect, for there are examples of intrusions of one into another. Perhaps these intrusions, limited to earlier examples in the region, only betray symptoms of a transition as the author has noted. Because of overlapping it is also not safe to locate exactly the mints of some of the gold Gupta coin-types.

Anupama Srivastava has rightly excluded the numerals from the region wise stylistic classification of the script as numerals are not scripts. In fact she could very well have treated the chapter on numerals as an appendix. It is interesting to note that the author does not find much evolution in the numeral signs in the Gupta epigraphs. There are variations in their forms but no regional stylistic affiliation can be assigned. Like the development of the Brahmi script perhaps an independent stydy of the development of the numerals in India is justified.

Dr. (Mrs.) Anupama Srivastava *nee* Verma deserves all appreciation for having contributed successfully to this technical and demanding field of palaeography, and in doing so she has very ably continued the tradition of scholarship in the subject so well nourished by her father Dr. T.P. Verma.

A.K.Narain

Varanasi.
Basant Panchami, (the 12th February, 1997.)

PREFACE

The palaeographic study of the script used in North India during the reign period of the Imperial Guptas is the subject matter of my studies in the present work. Although this script was derived from the Brāhmī script used in the majority of the Edicts of Asoka and developed during the last seven centuries, it will not be fair to call it the Gupta Brāhmī script. Earlier palaeographers preferred such dynastic nomenclature. But considering the bulk of material coming to light during the last several decades such dynastic names will not be appropriate to explain different palaeographic traits. Therefore, we have avoided the name 'Gupta Brāhmī.'

PLAN OF STUDY

For our study we have identified three sections. Inscriptions on stone, terracotta and copper-plate form the major section. Coin legends have been treated separately. Similarly the numerals also have been given separate tratment. for the first section w e have identified 65 inscriptions of the Imperial Guptas and grouped them in 48 small groups. These groups again are classified into five major groups termed A, B, C, D, and E. Group A consists of inscriptions of the Kausambi style and forms the subject matter of the Second chapter. The First chapter deals with the background tracing the developmental stages of Brāhmī from the time of Asoka. The Third chapter deals with the inscriptions of Bengal (From Nos. 17 to 28), and four groups of seals on metal and terracotta (Nos. 29 to 32). The Fourth chapter studies the inscriptions from North-west region with its centre at Mathura (Nos. 33 to 37), while in the Fifth chpater we have taken the inscriptions from Madhya Bharat or Malwa region and Gujarat (Nos. 38 to 48). Ths Sixth chapter studies the script on coins. In the Seventh chapter we have dealt with the numerals. The Eighth Chapter is Resume of the work done. As regards the arrangement of plates we have followed the method evolved by Dr. Verma. Each plate contains sixteen columns allotted to one or a small group of inscriptions. Two sheets have been used to illustrate the letters from ka to ha including the first line for initial vowel. Every set of these two sheets contains letters with medial signs

such as a, ā, i, ī, e, ai and so on. In the last conjucts are arranged in the above manner. In all there are 132 sheets of illustrations. Text figures are given wherever necessary at appropriate places.

I am highly indebted to earlier shcolars like Allan, Fleet, Dani, Sircar, Altekar, etc. who have worked in the field of palaeography from whose studies I am immensely benifited.

It is my privilege to express my sincere gratitude to all those persons who have helped in various ways to complete this work. First of all I am under a heavey debt of gratitude to my venerable teacher, Prof. P. Singh for his kind guidance and suggestions.

I express my deep sense of respect and gratitude to my father, Dr. T. P. Verma, from whom I learnt alphabets of Epigraphy and Palaeography. His useful suggestions inspired and enabled me to give present shape of the work.

I am thankful to Dr. Nisar Ahmed of our Department for providing me some recent works on Indian Palaeography incuding his won unpublished research papers on palaeography.

I am also indebted to my teachers Prof. Lallanji Gopal, Prof. V. C. Srivastava, Prof. Maheshwari Prasad and Dr. P. K. Agrawal for their constant encouragement.

I wish to offer my sincer thanks to Dr. Arvind K. Singh, Lecturer, Deptt. of AIHC & Archaeology, Jiwaji University, Gwalior; Shri Shashi Nath Singh and Sri Balmukund for thir help and encouragement.

My thanks are due to Sri S. C. Ghildiyal, Librarian of the Deptt. of A.I.H.C. & Arch., BHU, and Sri J.S. Yadav of the AIIS,Ramanagar, Varanasi, for their kind help.

I have immense pleasure in recording my profound sense of gratitude to my husband, Dr Ravindra kumar, who had constantly been a motive-force to accomplish this tremendous task.

I would be failing in my duty if I do not take this opportunity to thank the Director, Institute of Archaeology, Archaeological Survey of India, New Delhi, for providing me the Fellowship for Higher Studies/Research, during my research.

I am highly beholden to my parents, and parents-in-law and other family members whose blessings were my constant support and whose perennial encouragement prompted me to complete this work.

I shall fail in my duties if I miss to express my thanks to Dr. Shri Bhagwan Singh of M/s Ramanand Vidya Bhawan, New Delhi for publishing, the work with keen interest.

Anupama Srivastava

LIST OF INSCRIPTIONS

A. NORTH INDIA : KAUSAMBI STYLE

1. Allahabad Fort Stone Pillar Inscription of Samudragupta, Agrawal, P.K. No. 2; Fleet, CII., No. 1.

2. Udayagri (Fleet No. 6) Inscription of Śaba Virasena of the time of Chandragupta II, Agrawal, P.K., No. 11.

3. Gadhwa Staone Panel Inscription of Chandragupta II, GE. 88 (AD 407-08), Agrawala, P.K., No. 12; Fleet, CII., No. 7.

4. Gadhwa Stone Pillar Inscription of Kumaragupta I, Agrawala, P.K. , No. 17; Fleet, CII., No. 8.

5.a. Gadhwa Stone Pillar Inscription of Kumaragupta I, GE.98 (AD 417-18), Agrawala, P. K., No. 18; Fleet, CII., No. 9.

b. Gadhwa Stone Pillar Inscription of Kumaragupta I, Agrawla, P.K., No. 19; Fleet, CII., No. 64.

c. Udayagiri (Fleet No. 61) Inscr. of the time of Kumaragupta I, GE. 106 (AD 425-26), Agrawala, P.K., No. 20.

6. Karamdanda Stone Linga Inscription of Kumaragupta I, GE. 117 (AD 436), Agrawal, P.K., No. 25

7. Mankuar Stone Buddha Image inscription of the time of Kumaragupta I, GE. 129 (AD 448), Agrawala, P.K., No. 31; Fleet, CII., No. 11.

8. Kahaum Stone Pillar Inscription of the time of Skandagupta, GE. 141 (AD 460), Agrawala, P.K., No. 33; Fleet, CII., No. 15.

9. Supia Stone Pillar Inscription of the time of Skandagupta, GE. 141 (AD 460),

Agrawala, P.K., No.34.

10. Bhitari Stone Pillar Inscription of Skandagupta, Agrawala, P.K., No. 36; Fleet, CII., No. 13.

11. Gadhwa Stone Inscriptions of the time of Skandagupta, GE. 148 (AD 467-68), Agrawala, P.K., No. 37; Fleet, CII., No. 66.

12. Bihar Stone Pillar Image Inscription of Purugupta (c.467-68), Agrawala, P.K., No. 38; Fleet, CII., No. 12.

13 Sarnath Stone Buddha Image inscription of the time of Kumaragupta II, GE. 154 (AD 473), Agrawala, P.K., No. 46.

14.a. Sarnath Stone Buddha Image Inscription of the time of Budhagupta, GE. 157 (AD 476), Agrawala, P.K., No. 47.

b. Sarnath Buddha Image Inscription of the time of Budhagupta, GE. 157 (AD 476), Agrawal, P.K., No. 48.

c. Rajghat (Varanasi) Stone Pillar Inscription of the time of Budhagupta, GE. 159 (AD 479), Agrawala, P.K., No. 49.

d. Bhitari Stone Inscription of the time of Budhagupta, GE. 188 (AD 507), Agrawala, P.K., No. 56.

e. Sarnath Stone Inscription of Prakataditya, Agrawala, P.K., No. 60; Fleet, CII., No. 79

f. Bhitari Fragmentary Stone Slab Inscription of GE. 211 (AD 540), Agrawala, P.K., No. 61.

15. Nalanda Spurious CP Inscription of Samudraguapta, Year 5, Agrawala, P.K., No. 3.

16. Gaya Suprious CP Inscription of Samudragupta, Year 9, Agrawala, P.K., No. 4; Fleet, CII., No. 60.

B. NORTH INDIA : BENGAL INSCRIPTIONS

17. Dhanaidah CP Inscription of the time of Kumaragupta I, GE 113 (AD 432-39), Agrawala, P.K., No. 22.

18. Damodarpur CP Inscription of Kumaragupta I, GE 124 (AD 444), Agrawala, P.K., No. 27.

19. Damodarpur CP Inscription of the time of Kumaragupta I, GE 128 (AD 447), Agrawala, P.K., No. 28.

20. Baigram CP Inscription of the time of Kumragupta I, GE 128 (AD 447), Agrawala, P.K., No. 29.

21. Jagdishpur CP Inscription of the time of Kumaragupta I, GE 128 (AD 447), Agrawala, P.K., No. 30.

22. Paharpur CP Inscription of the time of Budhagupta, GE 159 (AD 479), Agrawala, P.K., No. 50.

23. Damodarpur CP Inscription of the time of Budhagupta, GE 163 (AD 482), Agrawala, P.K., No. 52.

24. Damodarpur CP Inscription of the time of Budhagupta, Agrawala, P.K., No. 53.

25. Nandapur CP Inscription, GE 169 (AD 489), **EI**, Vol. XXIII, Plate facing page No. 54.

26. Gunaighar CP Inscription of Vainyagupta, Agrawala, P. K., No. 37; Fleet CII. No. 66.

27. Damodarpur CP Inscription of king (---) gupta, GE 224 (AD 543), Agrawala, P.K., No 62.

28. Kalaikuri (Sultanpur) CP Inscription of the time of Kumaragupta I, GE 120 (AD 439), Agrawala, P.K., No. 64.

29. Bhitari Silver Seal of Kumaragupta II, Agrawala, P.K., No. 43.

30.a. Vaisali Terracotta Seal of Mahadevi Dhruvasvamini, Agrawala, P.K., No. 24.

b. Vaisali Terracotta Seal of Ghatotkachgupta (AD 435-36), Agrawala, P.K., No. 24.

31.a. Nalanda Tererracotta Seal of Narasimhagupta (AD 470), Agrawala, P.K. No. 41.

b. Nalanda Terracotta Seal of Kumaragupta II, (c. AD 473), Agrawala, P.K. No. 42.

32.a. Nalanda Tererracotta Seal of Vishnupta (c. AD 475), Agrawala, P.K. No. 44.

b. Nalanda Tererracotta Seal of Budhagupta (c. AD 476-494), Agrawala, P.K.

No. 45.

c. Nalanda Fragmentary Terracotta Seal of Vainyagupta (c. AD 507), Agrawala, P.K. No., 58.

C. NORTH-WESTERN INDIA : MATHURA STYLE

33.a. Mathura Stone Pillar Inscription of Chandragupta II, GE 61 (AD 380), Agrawala, P.K., No. 8.

b. Mathura Stone Fragmentary Inscription of Chandragupta II, Agrawala, P.K., No. 9; Fleet CII. No.32.

34. Mehrauli Iron Pillar Inscription of King Chandragupta II, Agrawala, P.K., No. 15; Fleet, CII., No. 32.

35.a. Mathura Stone Jain Image Inscription of Kumaragupta I, GE 113 (AD 432-33), Agrawala, P.K., No. 21.

b. Govindanagar (Mathura) Stone Buddha Image Inscription of the time of Kumaragupta I, GE 115 (AD 434), Agrawala, P.K., No. 63.

c. Mathura Stone Image Inscription, Year 135, Fleet, CII., No. 63.

36. Indrakheda CP Inscription of the the time of Skandagupta, GE 146 (AD 446), Agrawala, P.K., No. 35; Fleet, CII., No. 16.

37. Mathura Stone Pedastal Inscription of the time of Budhagupta, GE 161 (AD 480), Agrawala, P.K., No. 51.

D. MALWA STYLE

38. Eran Stone Pillar Inscription of Samudragupta, Agrawala, P.K., No. 1; Fleet,CII., No. 2.

39. Vidisa Stone Jain Image Inscriptions of the time of Ramagupta

a. Image of Chandraprabha

b. Image of Pushpadanta

c. Image of Padmaprabha, Agrawala, P.K., Nos. 5, 6, 7.

40.a. Udayagiri (No. 3) Inscription of Chadragupta II, GE 82 (AD 401), Agrawala, P.K., No. 10.

b. Sanchi Stone Pillar Inscription of Chandragupta II, GE 93 (AD 412),

Agrawala, P.K., No. 13; Fleet, CII., No.5.

c. Bilsad Stone Pillar Inscription of Kumaragupta I, GE 96 (AD 415-16), Agrawala, P.K., No. 16; Fleet, CII., No. 10.

41. Tumain Stone Inscription of Kumaragupta I & Ghatotkachagupta, GE 116 (AD 435-36), Agrawala, P.K., No. 23.

42. Sanchi Stone Rail Pillar Inscription of the time of Kumaragupta I, GE 131 (AD 450-51), Agrawala, P.K., No. 65; Fleet, CII., No. 62.

43. Mandasor (Dasapura) Stone Inscription of King Prabhakar mentioning Chandragupta II and Govindagupta, ME 524 (AD 467), Agrawala, P.K., No. 39.

44. Mandasor Stone Inscription mentioning Kumargupta I & Bandhuvarman, ME 493 &529 (AD 436 & 473), Agrawala, P.K., No. 40; Fleet, CII., No. 18.

45. Eran Stone Pillar Inscription of the time of Budhagupta, GE165 (AD 484), Agrawala, P.K., No. 54; Fleet CII No. 19

46. Shankarpur CP Inscription of the time of Budhagupta & Harivarma, GE 168 (AD 487-88), Agrawala, P.K., No. 55.

47. Eran Stone Pillar Inscription of the time of Bhanugupta & Goparaja, GE 191 (AD 510), Agrawala, P.K., No. 59; Fleet, CII., No. 20.

E. GUJARAT AREA

48. Junagarh Rock Inscription of Skandagupta, GE 136, 137, 138, (AD 455, 56, 457-58), Agrawala, P.K., No. 32; Fleet, CII., No. 14.

REFERENCES

1. Agrawal, P.K., 1983, ***Imperial Gupta Epigraphs***, Varanasi.

2. Fleet, J. F., 1888, ***Corpus Inscriptionum Indicarum***, Vol. III, (reprint 1963, Varanasi)

3. Majumdar, N.G., Nandpur Copper-plate of the GE 169, ***EI***, Vol XXIII, P. 53-55 and illustration.

* * *

Abbreviations

ASI-AR	Archaeological Survey of India-Annual Report.
ASI-ARIE	Archaeological Survery of India-Annual Report of Indian Epigraphy.
CII	Corpus Inscriptionum Indicarum.
CP	Copper-plate.
EI	Epigraphica Indica.
GE	Gupta Era.
IA	Indian Antiquary.
Ind.Cult.	**Indian Culture.**
IHQ	Indian Historical Quarterly.
JAHRS	Journal of Andhra Historical Research Society.
JAIH	Journal of Ancient Indian History.
JASB	Journal of Asiatic Society of Bengal.
JBORS	Journal of Bihar and Orissa Research Society.
JESI	Journal of the Epigraphical Society of India.
JGRI	Journal of Ganganath Jha Research Institute.
JMU (NS)	Journal of the Madras University (New Series).
JNSI	Journal of the Numismatic Society of India.
JOI	Journal of the Oriental Institute.
JRAS	Journal of the Royal Asiatic Society of Great Britain and Ireland, London.
JUB	Journal of the University of Bombay.
JUPHS	Journal of U.P. Historical Research Society.
ME	Malwa Era.
NPP	Nagari Pracharini Patrika (Hindi), Varanasi.

* * *

CHAPTER I

INTRODUCTION

The inscriptions of the Imperial Guptas are written in the Brāhmī script. Brāhmī is the name given to the script in which a majority of the Asokan inscriptions were written. Asoka used atleast four scripts for his inscriptions. In the Afghanistan area Aramic and Greek scripts were used, while in the present Pakistan area Kharoshthi script was used. In the rest of his empire from Kalasi in the north, Bengal in the east upto Mysore in the south, covering almost whole sub- continent, his edicts are written in the Brāhmī script. About Brāhmī and Kharoshthi one most peculiar feature is that both the scripts use Sanskrit **varṇamālā.** They are different in the assignment of formal signs to individual letters of the Sanskrit **varṇamālā** and direction of their writings. These features point towards many things. Firstly, the use of Sanskrit **varṇamālā** was prevalent in the whole sub - continent including Pakistan area. Secondly, their might have been some other script also in use, in the sub - continent (Verma 1971: 7), excluding Pakistan, which was written from left to right. We know that Aramic was written from right to left and the Kharoshthi of the Pakistan area was also written from right to left. Since Aramic and Greek were long in use in the north - western part of Mauryan empire it will not be unreasonable to belive that there must have been some script in use in the rest of the sub - continent before the Asokan Brāhmī was created. Thirdly, both Brāhmī and Kharoshthi were crated at this time by some intelligent person (s) who had a knowledge of Sanskrit **varṇamālā** and Sanskrit grammar (Dani 1963 : 23 - 24). That Brāhmī was a creation of the Mauryan period; slightly before the Asoka adopted it, is now an accepted fact (Verma 1971:8).

The Gupta script acquired its form after undergoing through great changes during the last seven centuries. Here it will be pertinent to point out at the out set that we do not favour the idea of naming script after the dynasties because it will be wrong to say that all scripts of the first to third centuries A.D., prevalent in the sub - continent, can be named after the

Kushanas, or those of the fourth - fifth centuries can be called Gupta script. There were many regional variations which cannot be explained if we give them dynastic names. We do not know if the people of those periods and areas had given any specific names to their scripts. And hence in the absence of any such evidence, we will prefer to study them regionvise.

But the above observation is not true regarding the Brāhmī script used for Asokan edicts. Dani and Verma both agree that the script of the Mauryan edicts was "Imperial" in nature (Dani 1963:35; Verma 1971:23). Therefore, it can be called Mauryan Brahmi script. It was a standard script used throughout his vast empire and there are many differences in the mode of writing, but this can not be called regional variation (Verma 1971:23). These differences may be on account of individual writer's habit, mannerism and also on account of the material or surface on which the script was written or engraved.

Here we should mention one fact about the writings which has come to us. These writings are either on lithic or metalic materials, and these are not the first-hand script of the writer. In the process of writing on the surface of a stone slab or a copper-plate it is difficult to say that the hand of the writer was followed by the chisel of the engraver. It is not necessary that engraver should follow the hand movement of the writer. Dani has illustrated how an engraver can make variation in the shape of a letter by selecting a part of the letter to be engraved first and the rest later. Even then Dani observes that "these variations do not make any fundamental difference in the actual form of the letters. The very technique of engraving implies such variations. But it is important to note that the engraver's part was secondary in the Asokan inscriptions. It was the writer who dictated the style of writing" (Dani 1963:33). But these observations of Dani do not seem to be fully true. We know that in the process of engraving, the engraver often considerably changed the shape of the letters and thus effect the style of the writing. For example, we can cite the case of the copper-plate found in the "Nirvan Stupa" of Kasia (Khushinagar) in 1911 (ASI-AR 1910-11: Pl.NO. 39). In this plate whole inscription is written in ink but only the first line is engraved. The engraved portion shows the hollow triangular headmark on the letters while it is not shown in the ink written portion of the copper-plate. We do not know if the engraver did it on the instruction of the writer or he did it on his own; and because of which he was asked to stop the work of engraving the rest of the lines; and, it was decided to deposit the copperplate as it is in the **Parinirvāna Chaitya**. Whatever the case may be this is the most glaring example of the difference made in the writing style by the engraver.

We do not want to discuss in any detail the question of the origin of the **Brahmi** script here. Various theories have been put forward by the earlier scholars regarding the origin of Brahmi from Semetic or Phoenician scripts which have now become only of classroom interest to teach the historiography regarding the origin of Brahmi. Now no scholar in India takes them seriously. Brahmi was devised on the basis of Sanskrit **varṇamālā** using simple geometrical forms such as angle, triangle, square, hook, etc. We prefer the views of Verma who differentiates between the phonetic value and the sign given to individual letters which he calls the principle of inner and outer development (Verma 1976:4). He rightly observes that "So far no Indian or European scholar has studied the problem of the Brahmi script by analysing or separating the signs and the phonetic values attached to them".

The credit to propagate the Brāhmī script throughout his empire goes to Mauryan king Asoka. His religious zeal can be seen in his edicts, which he wanted to last for ever. He was conscious about the errors committed by the scribes. Here he himself admits that "He has caused to be written these texts in concise or medium or elaborate forms and these have been written in his dominion in each and every place. Some topics have been repeated because of their sweetness so that people may act accordingly. Some times, texts are incomplete due to reasons like distance or time, abridgement or mistakes committed by the scribes" (XIV Rock-Edict of Asoka).

That during the time of Asoka this Brahmi script was still in its formative stage is attested by the spelling mistakes committed by the **lipikāras** of Royal Edicts. For example, **pri** is written as **rpi** and **tpa** is written as **pta** (XIV Rock-Edict of Asoka). Dani also noticed reversible varieties of letters **dha** , **o** , and **no** (Dani 1963:48). But we are more inclined to take these variations on account of the uncertainties which usually can be presumed in a script in the formative stage.

Although Buhler recognised " eight most important" forms of **a,** which is mainly based on the external shape of the letter, but Dani reduces these forms to three main heads on technical formation basis. Similarly some letters like **ja**, **va**, **kha**, etc. show some variations. But these variations can not be reduced into regional varieties. Upasak (1960:193), Dani (1963:35, 50) and Verma (1971:8) rightly believe that the Asokan Brahmi shows a universal style of writing throughout the empire. It was a standard script with little variations.

No other inscription than the Asokan edicts can be assigned to the period of Asoka except the Sohgaura plaque inscription and the Piprahva vase inscription. The Mahasthan inscription is too fragmentary to be sure for its assignment to the Mauryan period.

Nagarjuni hill cave inscriptions of Dasharath and Ramgarh hill inscriptions can be assigned to the Mauryan period but not to Asoka himself. The Sohgaura plaque inscription has been assigned to the Asokan period (Verma 1991:12-17). Similarly the Piprahva vase inscription also has been assigned to the time of Asoka (Verma 1990:98- 103). Thus, it is clear that the quantum of inscriptions of the Asokan period is very limited and among these only Piprahva vase inscription can clearly be called an unofficial document.

But when we come to the post-Asokan period, we observe two most important features in the realm of the writing Brahmi script. The first one is that a number of native states emerged with the disintegration of the Mauryan empire after Asoka, who used this script for their coins and inscriptions. Secondly, some foreign powers, who were confined to the north-western parts of the erstwhile Mauryan empire, also used this script on their coins; but followed mainly the Asokan trends. Their importance is seen in the adaptation of Brahmi script on coin on the Greek pattern.

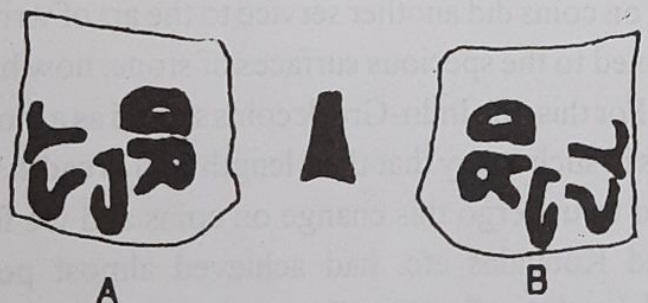
Dani has bracketed the Brahmi script of post- Asoka period upto the middle of the first century A.D. and he has divided it into four regional groups, i.e., (1) Eastern India with its centre in Magadh, (2) North-west India with its centres at Taxila, Mathura, etc. (3) Northwest Deccan and, (4) South India (Dani 1963:53). Although this is true for the writing upto the first century A.D. as a whole but in the case of the second and first century B.C., this general classification does not hold good.

The writing of the second and first centuries B.C. can be marked with the influence of the foreign contacts and experiments made on the coins as well as the popularisation of the art of writing among the Indian people. In the second century B.C. Verma assigns only one inscription, that of the Besnagar Garuda pillar inscription caused to be written by Heliodorus, the ambassador of the Greek King Antialkidas from Taxila (Verma 1971:48ff.). Narain assigns this Indo-Greek king of Taxila, at the end of the second century B.C. (Narain 1957:161). Beside this, there are coins with legends, which can be roughly dated in this period. Some inscribed cast coins found from Taxila to Eran in Madhya Pradesh can be dated after the end of the third century B.C. Sircar holds that the earliest inscribed coins do not appear to be earlier than the Besnagar inscription of the end of the second century B.C. because ' the fashion of the mentioning of the name of the ruling authority in coin legends was inspired and popularised in India by foreign kings beginning with the Indo-Greeks ' (Sircar 1951:159). We beg to differ with this great scholar because there are a number of inscribed coins which can safely be assigned in the late third or early second century B.C. But we can not deny the latter part of Sircar's observation that the fashion

of mentioning the name of ruling authority in the coin legends was inspired by the foreign kings. Verma also holds that ' the Greek inspiration , if not influence, on the earliest inscribed coinage of India, can not be denied'. He further observes that ' though the technique of casting inscribed metal pieces (he means Sohgaura Plaque) was not new in this period, the idea of inscribing the name of the ruler or city-guild on currency materialized for the first time and experiments with the script in preparing moulds and incuse-stamps etc. were made' (Verma 1971:43). Rapson (1987:2-3) wants to date the Negama coins of Taxila to the beginning of the fourth century B.C. and Bühler (1968: 48) fovoured the third century B.C. , while Cunningham (1963:65) favoured the early period of Indo-Greek rule. Further Rapson dates some Persian and Indian coins, counter-marked with Brāhmī letters, to the fourth or fifth century B.C. on the evidence of the original coins (Rapson 1895:868ff.) But Dani (1963:60) does not favour this opinion and observes that 'the date of counter- marking must be later than the time, when these issues were current, as this practice is limited and not to be seen at any latter time. This fact makes the date considerably later than that given by Rapson.' Verma endorses this by saying that' the letter forms on these coins also point to a later date since they roughly correspond with those of the coins of Agathocles and Pantaleon'(Verma 1971:45).

In the second century B.C. the coin legends in Brahmi script, on the coins of Agathocles and Pantaleon, the Eran coins of Dharmapala, the Negama coins, the coins bearing the legends **udehaki**, **upagodasa**, **upatikya**, **vataśvaka**, **kāḍasa**, **erkinya**, **tipuri** and the counter-marking with the Brāhmī letters on the Persian and Indian coins have been included by Verma (1971:45-46).

The general features of the Brāhmī script found on coins and the Besnagar inscription



A B

TEXT FIGURE I

of Heliodorus, show that the Brāhmī letters during this period, do not show much difference from the Asokan letters, so far as their general appearence is concerned. In the process of casting, some letters sometime become reversed by error. Such faults have been observed in the Sohgaura plaque and in the cast coins. The coin of Dharmpala with its reversed legend has inspired Buhler to postulate the theory that there was a time when Brāhmī was written from right to left (Buhler 1959:43).

But this is not the only case. In **kāda** coins the letter **sa** has not only been reversed ,but also put upside down, the **o** medial in leter **do** of **dojaka** coins have also been unconventionally attached. Some of the letters on coins and in the inscription of Heliodorus have angularity in the letters like **da**, **ma**, **va** **lo**, and **ha** while the top of the **ga** becomes rounded, verticals of **pa**, **ha**, **sa**, and **ya** show a tendency of equalization. Similarly the medial signs also show some development. Instead of attaching **ā** and **o** medial separately, a straight line has been given. These are features which indicate the future trends effecting the palaeography of the coming period.

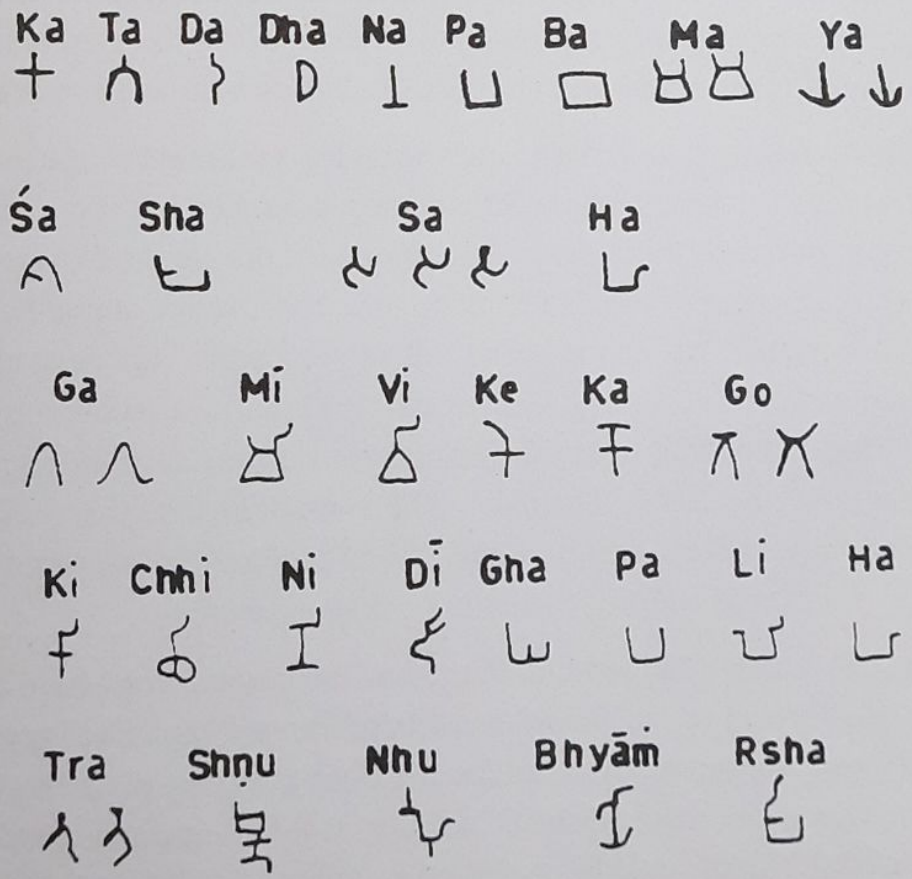
In the first century B.C. the speed of the development is slightly more accelerated. During this century the knowledge of writing was diffused among the people. Coins were small items which reached in the hands of people with some sort of writing on them. This aroused a curiosity among the people about the mysterious art of writing. So far the art of writing, if any, was confined to a certain group of people, who kept it secret and mysterious. During the Mauryan period, the art of writing Asokan Brahmi was confined to a small group of royal scribs. During the disintegration of the Mauryan empire, some private uses of this script can be marked in the Piprahva and Ramgarh hill inscriptions. But with the introduction of the script on coins, more and more people came to know about this art of writing and they became interested in it.

The use of writing on coins did another service to the art of writing. The Brāhmī script which was so far confined to the specious surfaces of stone, now has to be adopted on the limited space of coins. For this, the Indo-Greek coins served as a model. The Greek legends on coins had the letters in such a way that their length and breadth were almost equal. The Brahmi letters also had to undergo this change on coins and we find that the tribal coins of the Yaudheyas and Kunindas etc. had achieved almost perfection in this work. Conssequently, we find that the earliest Yaudheya coins, brearing the legend **Yaudheyānām Bahudāñāke**, considerably changed the shape of Brahmi letters and here they almost resembled the lettering on the Greek coins. But a perfection in this kind of imitation was achieved by the Kunindas, specially in the coins of Amoghabhuti. Verma rightly observes

that "the coins thus served as pioneer in the field of script style atleast in this period and it is not reasonable to hold the view that the coins are conservative in this period" (Verma 1971:57). The Brahmi letters on coins of this period were more advanced and modern than the script on the stone.

We have already mentioned that with the easy and frequent access of people to the coins, they became more and more interested in the mysterious and powerful art of writing. Religion also helped in its propagation. It is not a mere coincidence that the great stupas at Sanchi and Bharhut were being constructed and many parts of these were donated by the enthusiast **upāsakās**, **bhikshus** and laymen. They were inspired, beside their religious zeal, by the temptation to see their own names engraved on these monuments. Verma rightly observes that "It is not easy to imagine what percentage of persons was illiterate and how many learnt the script to enjoy the thrill of reading their own names. Undoubtedly, this was a great achievement towards the popularisation of script" (Verma 1971 : 58)

During this period we find some new signs and a little development in the form of



TEXT FIGURE II

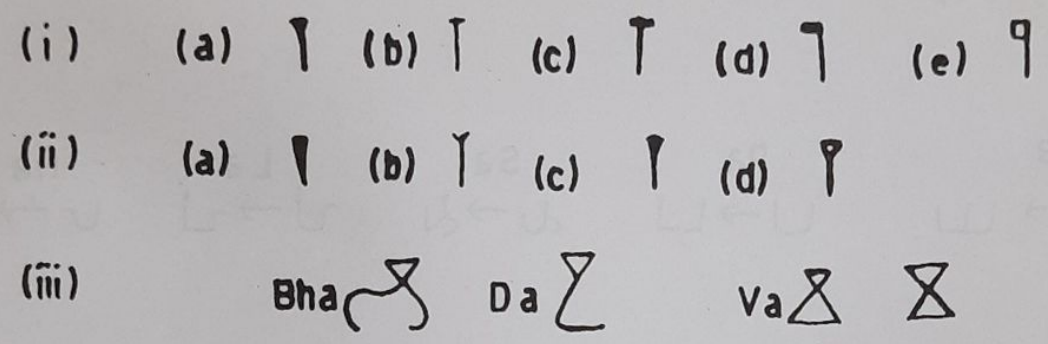
letters. The sign for long **u** is seen for the first time in a Bharhut inscription. The tendency to equalise the length and breadth of the letter is to be seen on coins in letters like **ka**, **ta**, **da**, **dha**, **na**, **pa**, **ba**, **ma**, **ya**, **sa**, **sha**, **ra**, and **ha**. Similarly, the rounded top of **ga** and angular bases for **ma** and **va** can also be seen during this period. Some changes can be marked in the application of medial **e** which is slanting (in **ke**) ; **o** medial is made either by a straight line (**ko** and **go**) or two slanting strokes, **i** medial is either angular or a simplified curve (in **ki**, **chhi**, and **ni**). For long **ī** two parallel slanting strokes are given. The base of **gha**, **pa**, **la**, and **ha** have become flattened. Some conjuncts are also noticeable in this period such as **tra**, **shnu**, **nhu**, **hmu**, **mhu**, **bhyām** and **rsha** etc.

The first century A.D. is marked with great changes in the formation of the limbs of the Brahmi letters. Uptil now Brahmi developed on the traditional lines established during the time of Asoka. Considering the developments in the subsequent centuries we can say that the tendencies which started during the early part of the first century A.D., influenced the later course of the art of writing Brahmi. The technical changes which were introduced during this period and the patronage given by the rulers to the writers, paved the way for further development of this script into regional scripts. Frequent use, on account of the developing popularity of the script also had its share in this development, because on this account personal mannerisms and individual habits played very important role.

As we have already stated, the script was taking a different shape on the coinage. The equalization of the verticals of the letters and angularisation of the curved bottom of some letters already started on these coins. But some time during the close of the first century B.C. or in the beginning of the first century A.D. the inscriptions of Śaka-Kshatrapas of Mathura demonstrate the use of broad edged reed pen. This new instrument proved revolutionary in the art of writing Brahmi script. In this new technique different limbs of individual letters got special attention and with the skillful use of the edged pen an entirely different shape of the letters emerged. The inscriptions of the Śaka-Kashatrapas of Mathura are neatly written, deeply engraved and perfectly preserved. In these epigraphs the changes in different limbs of the letters can be observed.

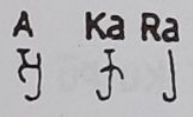
For the first time we can see that the top of the vertical lines have a triangular head-mark. This was formed by the skillful handing of the new pen. But very soon it became a fashion and those who were not so skillful in wielding the new pen, they deliberately made a hollow triangle as the head-mark of the letter. But here it did not end. There are cases where square head-mark could be seen with a variety of skill. There developed a number

of head-marks. Dani has listed seven types of such head-mark.



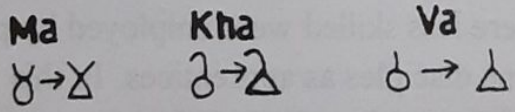
TEXT FIGURE III

The second change is to be seen in the vertical of some letters. For example, verticals of **a**, **ka** and **ra** are elongated. In some cases they are slightly turned towards left.



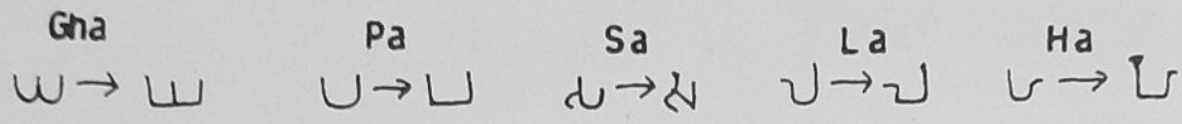
TEXT FIGURE IV

The third change is noticed in those letters, which had round appendages. Here they take the form of a triangle, as in **ma**, **kha** and **va**.



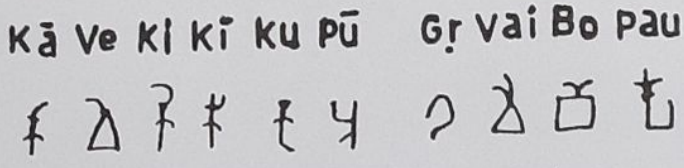
TEXT FIGURE V

The fourth change is noticeable in those letters which had rounded bottoms, such as **gha**, **pa**, **sa**, **la** and **ha**. In these letters the round base takes a flattened form with angles. A tendency to equalise the verticals also is seen.



TEXT FIGURE VI

The fifth changes is noticed in the style of medial vowels. The medial for **ā** and **e** has a slanting stroke. While the medial **i** and **ī** became rounded and some times ornamental, the medial **u** bends its base, the second stroke of **u** medial is added to the left of the first stroke. The **ri** medial also assumes a curved form. The medial for **ā**, **ai**, **o** and **au** bends upwards. These changes persist with older systems in some areas.

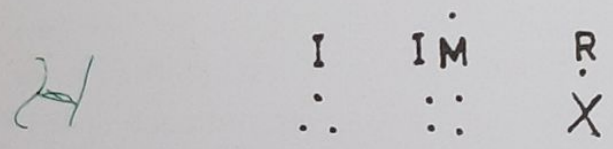


TEXT FIGURE VII

The other feature which effected the course of the devlopment during the first century A.D. and the following centuries is the emergence of a great number of writers in different regions. These writers were employed by the royal authorities for engraving their documents. Those who were less skilled were employed by private persons. Sometimes these writers admitted some disciples as apprentices. In this way beside the traits learnt through the instructions of the teacher, the individual mannerism also played a vital role in the development of script. At this stage it is pertinent to point out that writing on stone was not the only mode of writing. There are resanos to believe that writing in daily life was in more advanced stages in some regions of northern India, which gave rise to some

developed forms of the letters in some areas like Kausambi and Ayodhya. That is why during the period of Kanishka I and Huvishka, we find some advanced letter forms, which have created some confusion among the scholars. Here it seems that these advanced forms had developed on account of the regular practice of writting in daily life in some areas. But the writting specimens mostly on stone, which have come to us, can be called monumental writing. It is easy to imagine that in daily life practices, much precaution was not taken in the formation of letters which gave way to many advanced forms, and in this way a number of regional traits emerged.

Some new letters also can be noticed during this period. Here it should be made clear that we do not intend to suggest that these letters were not in existence but we only mean that we find these letters in the lithic inscriptions for the first time. A letter with four dots is to be found in the inscriptions of Mathura Kshastrapas and also at Bodhgaya. Dani (1963:53-54) and many others are of the opinion that this was a letter to be read as long i̤ . But Verma rightly points out that this can not be a long i̤ and he takes the fourth dot as an **anusvāra .** Wherever it occurs it always forms part of the word **Inda** or **Indra**. If we take it to be a long ī̤, it will become īda or Īdra which is senseless. Another vowel which has recently come to light from Mathura is ṛi̤. It is like a cross. It has also appeared in the Andhau inscription of the time of Rudradaman, year 59 (Tewari 1990:99-102, P. a,b,c,).



TEXT FIGURE VIII

In the last quarter of the first century A.D., the Kushana empire made its presence felt in northern India. Under their patronage large number of inscriptions were written in Brāhmī script; beside many in Kharoshthi in the Pakistan area. By this time the script had become more popular, and, more and more people became interested in it by recording their donations. As a result, the number of private inscriptions is more than those which bear the royal names (Verma 1971:109). Under the patronage of the kings, their officials and persons from the general public, many writers accepted writing as their profession. It

is natural that all the writers were not of the same caliber and skill. Usually the most skillful were employed by the royal authorities and this is evident from the neat and well written documents of the kings.

Verma suggest that in the Buddhist monestaries and other establishments the writing activities were widely practiced. 'But it was done on perishable materiels which have not reached us' (Verma 1989:263). In this way the art of writing became more and more popular and this period has been called the period of accelerated devlopment (Verma 1971:109).

The writers of this period were guided by three desires; i) The desire for swiftness in writing which gave rise to cursive forms. ii) The desire for ornamentation which paved the way for the new shapes. This tendency for ornamentation is to be noticed in the inscription from the Bijaygarh. The inscription from Jogayyapetta and Nagarjunikonda are know for symmetry and proportion which is an extension of the desire for ornamentation. And, iii) desire for simplification. Where ever it is traceable, it can be seen to follow the ornate or complicated way of writing, or atleast the accepted form already achieved by a particular technical process, the desire being to reduce time taken in producing the complex form without sacrificing its individuality. Dani observes that "while the first tendency deformed the letters and hence paved the way for new shapes, the second and third added ornamental curves, triangles and rectangles, and thus created different styles (Dani 1963:77). The individual habits, mannerism, likes and dislikes, and methods of forming every letter also contributed in the formation of styles. With these tendencies places like Sanchi, Mathura, Kausambi, Sarnath, Sravasti, etc. developed into important centers of writing activity, soon producing their own styles (Verma 1971:109). But Dani rightly observes that during this period the style was fluid. "Its ornamental additions were essentially superfluous and there was no fundamental difference in the main body of the letter. Brāhmī maintained its unity throughout the subcontinent" (Dani 1963:77). So far as northern India is concerned Verma (1971:109) holds that "during the period under review the Brāhmī script of northern India can be recognised to have become divided into two distinct schools of East and West. Mathura became a centre for the western style, while Kausambi led the eastern region. Even though the difference in these two schools was limited only to a few letters, the distinction is clear. Dani (1963:78) also holds that "it is not possible to speak of a uniform Kushana style as applicable throughout their empire during their rule". Dani and Verma both have pointed out that some Kushana inscriptions having some advanced letters, coming from the eastern style, have created confusion about their date and

attribution. For example, inscriptions of the year 4 (Sircar 1961-62:9) and 14 (Sahni 1927-28:96) mentioning the name of Kanishka have been assigned to Kanishka I, because the peculiarities of the letters **ma** and **ha** in these inscriptions are from the Kosam region. The same can be said about the Mathura inscription of Huvishka of the year 33.

In the Kosam region the inscriptions of the Magha rulers are also assigned to this period, which are a little more advanced in style than those of the Kushanas. These are dated in an unspecified era which has been accepted as the Śaka era, supposed to have been started by Kanishka I.[1]

The main features of the writing style of this period in north India can be distinguished in the formation of the head-marks and in attaching the medials. These peculiarities can be attributed to speed or swiftness. At least in northern India, the predeliction for ornamentation was a secondary consideration. The change of the triangular head-mark into a line head-mark can be mainly due to the speed consideration. The change of dots for **anusvāra** and **i** into short lines can also be attributed to this consideration. The flourishes of the medials were also simplified.

Now we will discuss some of the main palaeograpic traits which were practiced in different centres of northern India such as in Kausambi, Mathura and Sanchi.

Eastern Style

The inscriptions of the Kushana period has broadly been classified into two styles. First, the eastern style with its centers at Kosam, Sahet-Mahet and Sarnath. The Allahabad Museum inscription of year 23 and the Pahaladpur inscription has also been included in this style. Some seals found at Bhita, Basarh and Sahet-Mahet belonging to fifth century A.D. also show some tendencies of this style which continues to some extent in the coinage of the Guptas. In the eastern style the line head-mark is not to be seen but tapering verticals recall the style of the Mathura Kshatrapas. In the Kushana inscriptions of the above mentioned centres medial vowels are seen in the Mathura style.

In the eastern style there is another sub-style where the change is more marked. The

---

1. It has been disputed whether the Śaka era, starting from the year 78 A.D. was initiated by Kanishka I. With the coming of the inscriptions from Andhau in light, which are dated in the earlier years, it has become more doubtful whether Kanishka I can be given credit for the initiation of the Śaka era. But for working hypothesis we have accepted the Kanishka I to have flourished in the late first century A.D.

Allahabad Museum inscription is written in the Mathura Kshatrapa style because the head formation and application of the medial vowels in letters like **ka**, **kha** **ga**, **gha**, **cha**, **chha**, **ja**, ect. show Pre-Kushana Mathura style. But some letters like **na**, **ma**, **sa**, **bha**, and **ha** are in different style. The sub-script **ya** is in the tripartite form.

But in the Kausambi area the inscriptions of the Magha rulers are written in slightly different style. These inscriptions are dated between the year 52 and 139 of an unspecified era. This is generally equated with the Kanishka era which is accepted to have started in 78 A.D. In this style the tapering verticals and old system of marking medial vowels can be seen. Some letters like looped **na**, open mouthed **na**, tailed **ma** along with open mouthed **ma**, the hooked **la** and **ha** and looped **sa** are distinctive features. When **ya** is used separately it is in the looped form but when it comes as a sub-script, it becomes hooked. These cursive forms are used in the Allahabad pillar inscription of Samudragupta about which we will discuss in the next chapter.

Western Style

The western style of the inscriptions are mostly found from Mathura centre but this style was also found from Sanchi and eastern Malwa region. Mathura was the most advanced centre so far as the writing of the Brāhmī script is concerned. The Śaka-Kshatrapas introduced a writing system with tapering verticals, which developed further during the period of the Kushanas. The **i** medial is simplified and **anusvāra** is shown with a short line. Some letters which had oval appendages have now a triangular bases such as **kha**, **ma** and **va**; **na** and **na** have their bases some times bent, **da** generally is seen in its older from with its mouth open to left, but the right side open **da** is also to be seen, which is a new development. **Bha** is of broad type with a notch in the middle. The base of **ya** becomes wider, and the lower tip of **ra** is curved, sub- script **ya** is generally of tripartite form. These forms changed very rapidly during the Kushana period and later on this gave way to the Gupta script of the fourth century A.D.

REFERENCES

1. ***Archaeological Survey of India-Annual Report 1910-11***, Plate No.39.

2. Buhler,G, 1959, Indian Palaeography, reprinted in ***Indian Studies : Past and Present***, Vol I, No. I, calcutta.

3. Buhler, G, 1968, ***On the Origin of Indian Brahm Alphabet***, 2 nd revised edn., Varanasi.

4. Cunningham, A, 1963, ***Coins of Ancient India,*** Varanasi.

5. Dani, A.H., 1963, ***Indian Palaeography,*** Oxford Univ. Press, London.

6. Narain, A.K., 1957, The ***Indo- Greeks,*** Oxford.

7. Rapson, E.J., 1895, Counter-marks on early Persian and Indian Coins, ***JRAS.***

8. Rapson, E.J., 1897, ***Indian Coins,*** Strassburg.

9. Sahni, D.R. 1927-28, Mathura Pedestal Inscriptions of the Kushana year 14, ***Epigraphia Indica,*** vol. XIX.

10. Sircar, D.C., 1951, The Age of Imperial Unity in R.C. Majumdar et.al. (ed) ***History and Culture of Indian People,*** Vol. II, Bharatiya Vidhya Bhawan, Bombay.

11. Sircar, D.C., 1961-62, Brahmi Inscriptions from Mathura, ***Epigraphia Indica,*** Vol. XXXIV.

12. Tiwari, S.P., 1990, How early the words like Rigvedas might have been written, ***Journal of Epigraphical Society of India,*** Vol. 16, Pls. Vi a,b,c., pp. 99-102.

13. Upask, C.S. 1960, ***The History and Palaeography of Mauryan Brahmi Script,*** Nalanda.

14. Verma, T.P., 1971, ***The Palaeographby of Brahmi Script in North India,*** Siddharth Prakashan, Varanasi.

15. Verma, T.P., 1976, ***Development of Script in Ancient Kamrupa,*** Assam Sahitya Sabha, Gauhati.

16. Verma, T.P., 1989, Progress of Modification of the Alphabet as revealed by Coins, Seals and Inscriptions from Mathura in Doris, M.Srinivasan (ed), ***Mathura : The Cultural Heritage,*** AIIS, New Delhi.

17. Verma, T.P., 1990, ***Purābhilekh Chayanika*** Pt I (Hindi), Siddharth Prakashan, Varanasi.

18. Verma, T.P., 1991, Identification of Place Names in Sohgaura Bronze Plaque ***Journal of Epigraphical Society of India,*** Vol. 17, pp. 12-17.

* * *

CHAPTER II

NORTH INDIAN STYLE : KAUSAMBI REGION

In the early fourth century A.D. the Gupta dynasty established itself in north India. Most probably their original home was somewhere in the eastern Uttar Pradesh, but it seems that Ayodhya was their capital. This is attested by the early inscriptions and the coin hoards (Goyal 1967:46ff.) of the regions of Kosala, Kashi and Allahabad. But as a good number of early Gupta inscriptions are found from the Allahabad region and, also that Kausambi was the most famous centre in this region, the earliest style of the Gupta inscriptions has been given the name of Kausambi.

The first important king of the Gupta dynasty was Samudragupta who was the son of Chandragupta and Kumaradevi. The name of his grand father was Ghatotkacha. Some of the scholars have attempted to assign the Chandragupta - Kumaradevi coin type to the father of Samudragupta, where they call him Chandragupta I (Altekar 1957:28). But recently some scholars have emphasised that Samudragupta was the establisher of the glory of the Gupta dynasty and it is futile to go in search for a coin or inscription which can be assigned to this Chandragupta, the father of Samudragupta. Samudragupta was an ambitious king and after conquering his neighbours in northern India he set for a **digvijaya** in the south upto Kanchi. He declares that his influence was felt and accepted by the islanders of Singhal etc. In the north-west Śaka-Murunda, Śāhīs and Śāhānushāhis were subdued by him and were obliged to request for permission from Samudragupta to rule over their territories. After subduing the kings of northern India from Assam to Pakistan and from the Nepal in the north to Kanchipuram in the south he perhaps performed a horse sacrifice **(Aśvamedha)** at Prayaga. His **praśasti** was engraved on a pillar of Asoka, which now stands in the Allahabad fort. It is most probable that he selected Prayaga for a horse sacrifice because of its religious importance. Some scholars are of the opinion that this pillar of Asoka originally stood in Kausambi where the **praśasti** was engraved. But this

seems less likely. Goyal suggested that Allahabad was his capital (Goyal 1967:51-52, f.n.2). The successors of Samudragupta claim that he performed **Aśvamedha** sacrifice and this is attested by his **Aśvamedha** type coins also. There is a controversy about the name Kacha also but Verma rightly holds that perhaps this was another name of Samudragupta (Verma 1992:108). He was succeded by his son Chandragupta Vikramaditya who also issued a good number of coins and inscriptions. The third king of this dynasty was Kumargupta I. His successor was Skandagupta. After Skandagupta there seems some irregularity and confusion about the succession of the kings, But we have inscriptions and coins of almost all the kings who succeeded Skandagupta. Some of their feudatories also issued inscriptions mentioning their overlords which help us in determining the dynastic history of the Guptas.

Scheme of Approach

The inscriptions of the Guptas, which are 65 in number, have been regrouped into 48 groups which are again reduced into four groups, according to region and chronology.

About the Gupta script Dani observes that 'the old palaeographers (like Fleet, Buhler, Hoernle etc.) wrote of a common Gupta alphabet with regional variations. Fleet distinguished two classes- Northern and Sourthern. And Hoernle further pointed to a distinction between eastern and western group mainly on the basis of a few letters' (Dani 1963:100). He further notes that 'this classification was based on the materials available to them. Newly discovered north Indian inscriptions belonging to the second to fourth century A.D. remain unexplained if this concept of the old palaeographers is adhered to. The so called special letters of the eastern Gupta alphabets were long in use in the inscriptions of the Magha rulers at Kausambi. Their influence has been traced in the rare inscriptions of Kanishka and Huvishka at Mathura and in the east at Sahet-Mahet the looped **sa** and hooked **ha** have been found'. Dani further explains some regional variations by saying that 'The Mathura style of the Kushana writing is seen at Sanchi but is hardly observable in the east except that the Mathura system of vowel marking is noticed in the Kanishka inscriptions of Kosam, Sarnath and Sahet-Mahet'. But here it should be noted that these three inscriptions were perhaps engraved in Mathura after sculpturing the images at that centre, or perhaps they were engraved by the Mathura writers (Gupta 1979:142). In the Malwa region the influences from the western Saka-Kshatrapas and the Satvahanas effected the course of the writing. In the socalled Kausambi style also some variations can be found. The Allahabad pillar inscription and the Bhita seals can be put under the Kausambi style, but 'the longer inscriptions of Pavarika at Sahet-Mahet and the seal of

Dhruvasvamini at Basarh show a different eastern style as seen in the Sarnath inscription of Asvaghosha'. Dani rightly observes that 'the Eran inscription of Samudragupta and the Sanchi inscription and all but one of the Udayagiri inscriptions of Chandragupta II follow the Malwa style, while the Mathura inscription of Chandragupta II are in the Mathura style. But a change was definitely coming towards the close of this century. The earliest evidence is supplied by the Udayagiri cave inscription (our No.2) of Chandragupta II which is written entirely in the Kausambi style'. In the fifth century A.D. the Kausambi style became dominant in the Ganga valley although some other styles also continued to be in use here and there. It is under these circumstances that we have classified our study of the Gupta inscriptions into four regional styles and then arranged them in chronological order.

We have arranged all the 48 smaller groups of inscriptions of the Imperial Guptas in to four main groups which we have classified under A, B, C and D. This classification has been done on regional basis. Groups A contains epigraphs of the Kausambi region although some of these have come from a region outside of Kausambi area, but they have been grouped here on palaeographical consideration. This pattern has been followed in other groups also. These have been given in **Column Nos. 1** to **16**. Group B contains 20 inscriptions which can palaeographically be classified under eastern variety. A majority of these epigraphs are copper plate inscriptions from Bengal and several seals from Bihar and Uttar Pradesh. These have been given **Column No.17** to **32**. Group C containing eight epigraphs in all from the Mathura region **Column Nos. 33** to **37** while Group D, from **Column Nos.38** to **48**, has 14 inscriptions in Malwa style. The writing on Imperial Gupta coins has been given a separate treatment. Besides this, numerals have been drawn in separate plate.

The group A containing as many as 22 inscriptions, are put under 16 distinct groups, which are as follows; and, each group has been given a particular Column number in our plates of illustration.

Col.1. Prayaga (Allahabad Fort) Stone Pillar Inscription of Samudragupta.

Col.2. Udayagiri Cave (No.7) Inscription of Virasena of the time of Chandragupta II.

Col.3. Gadhawa Stone Panel Inscription of Chandragupta II, Gupta year 88 (A.D. 407-08).

Col.4.a. Gadhawa Stone Pillar inscription of Kumaragupta I.

b. Gadhawa Stone Pillar Inscription of Kumaragupta I, Gupta year 98 (AD 417-18).

Col.5. Gadhawa Stone Pillar Inscription of Kumargupta I.

Col.6. Karamdanda Stone Linga Inscription of Kumaragupta I, Gupta year - 117 (AD 436).

Col.7. Mankaur Stone Buddha Image Pedestal Inscription of the time of Kumaragupta I, Gupta year - 129 (AD 448).

Col.8. Kahaum Stone Pillar Inscription of the time of Skandagupta, Gupta year - 141 (AD 460).

Col.9. Supia Stone Pillar Inscription of the time of Skandagupta, Gupta year -141.

Col.10. Bhitari Stone Pillar Inscription of Skandagupta.

Col.11. Gadhawa Stone Inscriptions of the time of Skandagupta, Gupta year - 148 (AD 467-68).

Col.12. Bihar Stone Pillar Inscriptions.

Col.13. Sarnath Stone Buddha Image Inscription of the time of Kumaragupta II, Gupta year - 154 (AD 473).

Col.14.a. Sarnath Stone Buddha Image Inscription of the time of Budhagupta year-157 (AD 476);

b. Sarnath Stone Buddha Image Inscription of the time of Budhagupta, Gupta year - 157;

c. Rajghat (Varanasi) Stone Pillar Inscription of the time of Budhagupta, Gupta year - 159 (AD 479);

d. Bhitari Stone Inscription of the time of Budhaguptam, Gupta year -188 (AD 507);

e. Sarnath Stone Inscription of Prakataditya;

f. Bhitari Fragmentary Stone Slab Inscription of Gupta year - 221 (AD 540).'

Col.15. Nalanda Spurious Copper Plate Inscription of Samudragupta, year -5.

Col.16. Gaya Spurious Copper Plate Inscription of Samudragupta, year -9.

The above 16 groups of inscriptions belong to the Kausambi style. In our palaeograaphic

charts each group has been given the same number and the alphabets occuring in that group of inscriptions have been drawn in the same column in subsequent plates. Every plate has two sheets. Sheet **a** contains letters **ka** to **ta**, beside initial vowel and the sheet **b** contains letters **tha** to **ha**. Beside this these plates are arranged according to Sanskrit vowel sequence. For example, plate **Ia** and **Ib** contain letters without vowel medials, while plates **IIa** and **IIb** have letters which **ā** medial signs, **IIIa** and **IIIb ī** medial, **IVa** and **IVb ī** medial, and so forth. The arrangement in plate **XIVa** and afterwords is a bit different because in the following plates we have listed selected ligatures. As the number of ligatures are very large in some inscriptions we had to be selective in their listing. Only four columns have been given to every group of inscriptions for ligatures and these too have been drawn in accordance with the Sanskrit **varnamālā** order. This arrangement has been followed in the subsequent chapters also.

Samudragupta established the dynasty of the Imperial Guptas on a firm footing sometime in the second quarter of the fourth century A.D. Only four inscriptions are found so far which can be credited to him. The Eran stone pillar inscription is written in the Malwa style in the solid box-headed characters, hence it will be discussed in the Vth chapter. The Gaya and Nalanda Copper plates show advanced style of writing on which account they have been declared spurious. We will deal these two copper-plates in this chapter a little later. The Allahabad inscription of Samudragupta is engraved on a stone pillar of Asoka which was perhaps originally erected at Kausambi but now it stands in the Fort of Allahabad. It is written in the cursive hand and the forms like looped **ṇa**, open mounthed **ṇa**, the tailed **ma**, the hooked **ha** and the looped **sa** all indicate to the same direction. Some letters show solid triangle head-mark but in some cases notched head-mark is also noticed. The application of medial vowels are in current eastern style but in some cases Mathura Kushana style is also seen.

Before proceeding to describe the palaeographic features of this inscription it will be pertinent to explain that this is not the first inscription in the Kausambi style. The kings of the Magha dynasty were in the habit of using the eastern variety of the Brāhmī alphabet long before the Guptas adopted it in their inscriptions. Thus it can be assumed that this Kausambi style was not new invention of the Guptas but it developed out of the use of the writing in this area. Again this is not the only eastern variety. Dani (1963:100) observes that 'the longer inscription of Pavarika at Sahet-mahet and the seal of Dhruvaswamini at Basadh show a different eastern style, as seen in the Sarnath inscription of Aśvaghosha'. Thus we should not remain under the impression that the Allahabad pillar inscription of

Samudragupta was the only specimen of the so called Kausambi style. There are reasons to believe that during the ealry Gupta period there were more than one eastern styles; but we can depend upon only those which have survived and have come to us.

The Allahabad pillar inscription of Samudragupta is the earliest Gupta inscription of Kausambi style. It is a continuation of the style from the Magha epigraphs. The Susunia rock inscription of Chandravarma is also written in the same style. Dani (1963:102) observes that it is surprising to find an inscription in the Kausambi style in Bengal in the middle of the fourth century A.D. to which period King Chandravarman is generally assigned. Palaeographically the Susunia inscription does not seem older than the close of the fourth century A.D. But an earlier intrusion from Kausambi is not unlikely.

Initial Vowels

In this inscription (Col. 1) the initial vowel **a** has only the angular form with its lower left stroke drawn at an angle. The initial **i** has a veritical line on the right, beside two dots one above the other to the left. Initial **u** has a horizontal top bar and a slanting vertical with upward curve which is turned to the right. The intial **e** continues its triangle type.

Consonants.

Ka has its horizontal bent and veritical takes a tapering shape. **Kha** has both flat and curved top while the base of the triangle of **kha** is prominent. The right arm of **ga**, **ta**, **bha** and **śa** are prolonged and upper portion of **ga** is almost flat or in some cases it has rounded top also. The left limb of **kha**, **ga** and **śa** have foot-marks. **Gha** has either its left arm or its base curved. Verticals are almost equalised and middle stroke comes closer to the right veritical.

Cha has a beak and line headmark. **Chha** is found in subscript in which it has double loop at the base. **Ja** has all its three arms slanted downwards, while according to Dani the lowest arm some times bends still further

Top of the letter **ṭa** is developed in to a flat horizontal bar on semi circle. **Ḍa** maintains its old form by prolonging the lower vertical. Dani has drown the letter **ḍha** without **ā** medial but this letter does not occur in this inscription. However, letter **ḍhā** is found in the word **virūḍhākul** in 18th line. **Ṇa** has developed a looped variety of the open mouthed **na** of the north.

The northern **ta** has its right limb prolonged and the top becomes triangular. **Tha** is a circle having a dot within, and according to Dani (1963:103) **tha** has optionally a line

in place of the central dot. **Da** is of the round backed type and its curve becomes a sort of double curve. But **dha** has almost an oblong form and the lower limb becomes angular. **Na** has both type, open loop and solid loop at the base but the first form of the letter is more common.

Verticals of **pa** are equal and the letter **ba** has a square shape. **Bha** is of the angular variety with its right arm further extended. **Ma** is of the tailed variety.

Ya has a loop at the left arm and the left half of the base is curved while the right one is slanted. **Ra** is a straight vertical and the top of the letter becomes triangular. **La** is of the hooked type as we find in eastern style. **La** is also found in this inscription in its prototype form which are seen in Sanchi and Mathura during the Kushana period. Among the Gupta inscriptions only Allahabad pillar retains this letter. It is formed by an additional stroke at the lower limb (See Dani 1963:54; Verma 1971:75 for its derivation). The vertical of **va** is reduced which some times take the shape of triangular head-mark and its base is slightly slanted.

In the letter **śa**, left limb has triangular footmark and a horizontal line in the middle. The top curve of the letter becames peculiar with a downward extending right limb. **Sha** is formed by a narrow oval with a head-mark in the left limb and leftword angle at the right. **Sa** is of the looped variety while **ha** is of the hooked type.

Medial Signs

There are two systems of attaching **ā** medial in this epigraph. The medial **ā** is denoted by a straight horizontal line with its top turned downwards while in the case of **nā**, it is attached to the lower right tip. In **mā** the hook is attached to the right arm and in **tā**, it is turned upward.

The curve of the medial **i** is further extended with a downward turn reaching below the head-mark. The long **ī** has its right arm longer than the left. In the case of the medial u, the hook of **u** is turned upward in **gu**, **tu**, **du** and **bhu**, etc. and in **ru** and **hu** the hook is turned downward. The long medial **ū** is formed by a leftward curve with a rightward horizontal stroke or leftward curve opened downwards in **dhū**, **shū**, **sū** and **bhū**. It has been made with the downward curved attachment on the right of an upturned medial **u** while in the **rū** it is marked by two stokes at the bottom of the letter **ra**.

Medial **ri** is indicated by a rightward hook to the lower limb of the letter.

The medial **e** and **ai** follow the Kushana style. The medial **e** has a single slant to the

left and **ai** has two slants.

The medial **o** and **au** also follow the Kushana style. Medial **o** is a combination of two strokes of medials **ā** and **e**, both stroke are put into slanting form, in which one is to the left and other to right. It is to be seen in **ko**, **to**, **no**, **ro** and **po**, etc. In the case of **to** and **no**, an upper slant of medial **e** is added to the sign of **tā** and **nā** which makes it **to** and **no**. The medial **au** has a third vertical mark added in the middle of the **o** mark.

LIGATURES do not follow the rule of Sanskrit grammar. They follow the earlier style in which the letter pronounced first is written in full form in the same line while the following letter is attached just below the former. Such conjuncts are to be noted in both forms of **sa**, hooked and looped. In this inscription the looped variety of **sa** has been used but in the case of **stha**, the equal armed **sa** with a left hook (or hooked **sa**) has been used (Col. 1). According to Dani (1963:90) 'A definite Kushana influence is seen in the use of the hooked variety of the subscript **ya**, while the looped form of **ya** is seen when used singly' In conjunct **rsha**, the **sha** is formed with a tail in Allahabad pillar inscription.

Chandragupta II succeded his father Samudragupta who ruled for a long time. He continued this style during his period also in the north India but it was introduced in other areas also. According to Dani (1963:100) 'But a change was definitly coming towards the close of this century. The earliest evidence is supplied by the Udaygiri Cave Inscription (Fleet No. 6) of Chandragupta II, which is written entirely in the Kausambi style.' In both the inscriptions, the cursive forms follow the Kausambi style. The head-mark is characterized by a solid triangle.

Initial Vowels

In the Udaygiri Cave Inscription (Col. 2) the initial **a** has only the angular form of the early Gupta; and the Gupta type of initial **i**, in which two dots are placed on the left of a vertical are seen.

Consonants

In these inscriptions the letters are in the cursive forms, which copy the Kausambi style. The vertical of **ka** takes a tapering shape and left curve is turned into a downward tick. The top of **ga** is in the rounded form and the right arm is prolonged. But in the Udaygiri cave inscription **ga** has a footmark at the left limb.

In the Udaygiri cave inscription **cha** bears a triangular head-mark, while in the Gadhawa inscription **cha** maintains the Allahabad pillar form. In Udaygiri cave inscription

ja is in the old form with all its three arms slanted downwards.

The letter **ṭa** and **ṇa** which are found in only Udaygiri cave inscription show no noticable change. **Ṭa** is formed into a semi-circle and top of the letter has flat horizontal bar. The letter **ṇa** is formed in the looped variety of which the mouth is open.

The letter **ṭa** is formed with prolonged right limb and the top becomes triangular. The letter **da** of Udaygiri (Col. 2) is of the round backed type. Here **dha** has almost an oblong form but in the Gadhawa inscription **dha** is formed with its lower end narrowed. Letter **na** is formed in the looped variety with prolonged right arm.

The letter **pa** is found only in the Gadhawa stone panel inscription; it is formed with equal angular arms, and the left limb bears a head-mark; and the base of the letter is slightly slanted. The letter **ba**, in the Udaygiri cave inscription, is formed in the square type. **Bha** of Udaygiri is of the angular variety, and bears a triangular headmark. **Ma** is of the tailed variety. At the Udaygiri (Col. 2) both the verticals of letter **ma** are marked with triangular head-mark, while in the Gadhawa (Col. 3) the triangular head-mark is seen only on its left limb.

The central stroke of **ya** has a thickned top while the left is curved. **Ra** has straight vertical with triangular head-mark in Udaygiri but in Gadhwa it has a straight vertical with bent top. **Va** is in its old type.

The letter **śa** has a triangular foot-mark in the left limb; and a horizontal line in the middle. In the Udaygiri the top of letter **śa** is flat, while in the Gadhawa it has a rounded top. In the Udaygiri letter **sa** is formed in the looped variety but at Gadhawa, the left limb of the letter **sa** has a bent head-mark. The **ha** of Udaygiri is formed in hooked variety, curved to the left while in the Gadhawa the hook slightly bends downwards.

Medial Signs

The medial **ā** is marked generally by a single slant and in some cases this slant of the top is turned downwards.

The medial **i** is formed with a hook, carries its right end below the head-mark. The long **ī** imitates the old system.

In the case of **gu** the hook of **u** is turned upwards, while in the **pu** and **mu** it is formed with the vertical type of the medial **u**. Long **ū** is formed in letter **pū** with the left curve attached to the vertical type of the medial **u**.

The medial **ṛi** in **kṛi**, **ṭṛi** and **pṛi** are formed with a curved slant going to left.

Medial **e** is formed with a top slant at the left.

Medial **o** is in the form of two slanting strokes at the top in Udaygri. **Kau** is marked with three strokes where the middle one is upright.

Ligatures

In the ligatures no different forms are seen. On the whole the forms are generally like those in the Allahabad pillar inscription. The letter **tha**, when it is used as a subscript becomes oval and its middle bar vertical. In Udaygiri the middle line of **sha** is slanting downwards in conjunct **rshe**.

Column Nos. 4, 6 and 7 have been taken together for paleographic studies. All these epigraphs belong to the reign period of Kumaragupta I (c.A D 414-455) and may be grouped together. But, however, the Karmdanda inscription shows some influence from Mathura in the letter like **sa** and the attachment of **ā** medial, etc.

Initial Vowels

A new change is seen in the form of intial **a**. The left limb of **a** hangs down from the triangular head-mark and a horizontal middle bar is joining the two limbs; and an additional hook is attached to the right limb. But in Karamdanda (Column No.6) the left limb of initial **a** hangs down from the triangular head-mark and ends in a hook open to left. Here the **ā** medial is attached to the foot of the right arm. The initial **i** is formed with two dots and a vertical on the right, as seen in the Allahabad pillar inscription. The initial **u** is formed with its angle rounded and turned upward. No other vowels are seen here.

Consonants

The middle bar of **ka** is curved, and **kha** and **ga** have flat tops. Sometimes **cha** is slightly bent down. **Ta** and **da** both show no change. **na** is of the open mouthed type and in some cases looped variety of the open mouthed **Na** is also seen. The right limb of **ga**, **ta**, **bha** and **śa** are longer than the left as in the Allahabad pillar inscription. **Tha** is formed with a dot in a circle. **Da** has double curve, while **na** is of the looped variety. **Pa** has a slight curve, with a triangular head-mark on its left limb. **Ba** is of the square type. **Bha** is formed in angular variety with a triangular foot-mark at the left limb. **Ma** is of the tailed variety. But in the Karamdanda inscription of Kumaragupta I (Column No.6) an important change is seen in the form of **ma**, which is an open mouthed **ma**, with a curve or half circle at the left, in place of the tail. This variety is found only in the Mathura region. **Ya** is in tripartite type with a loop at the left arm and the base slanting at right half and curving in left half.

Ra has straight vertical with triangular headmark. **Va** is of the triangular type. **Ha** is of cursive variety with the rounded bottom. **Śa** has both curved and straight tops. **Sha** has equal arms with a full length mid-line. The Gadhawa stone pillar inscription (Col.4) and Mankuar stone inscription of the time of Kumargupta I (Col. 7) have looped variety of **sa**, while in the Udaygiri cave inscription (Col. 5), Karamdanda stone inscription of the time of Kumaragupta I (Col. 6) have equal armed hooked **sa**, with an acute angle at the right bottom. **Ha** is found only in the Karamdanda inscription, which has equal arms with its right tick curving downwards.

Medial Signs

The practice of Mathura style of medials of the Kushana period continued here with some changes. The medial **ā** is formed with a horizontal stroke but in some cases top slant of the medial **ā** is also found. The rounded medial **i** is formed with the left curve which some times extends downwards. The long **ī** medial has longer left curve than the right. The medial **u** is of extremly curved type and the **pu**, **mu**, **yu**, **shu** and **hu** have the vertical type of medial **u**. But in the Karamdanda inscription, (Col. 6) **ku**, **tu**, **nu**, **ru** and **su** are formed with a horizontal downward curve, while in the Mankuar stone inscription (Col. 7) the **ru** is formed in a extremly curved type. The long **u** medial has either an additional curve or a horizontal mark attached to the right of the vertical.

Medial **ṛi** is formed with a curve and hooked type of the northern variety and in some cases it has a round curve of the southern type of medial **ṛi**. The medial is formed with the top slant and **ai** has two top slants. The two top slants in two directions are formed for the medial **o**, while **au** has three top strokes in which the middle one is vertical.

Ligatures

No noticable change have seen in the formation of ligatures. In the conjuncts **sta**, **spha**, **sya** and **sva, sa** is formed with equal arms and acute angle at the right bottom, but in the Gadhawa (Col. 4) the conjunct **ssa** has both the **sa** in the looped variety. In Karamdanda (Col. 6) **chha** is double looped in conjunct **chchhai**, and both **ta** are formed with half circles one over the other in **tta**; while **ma** in **mya** has a half circle in place of the tail but in conjunct **rmma**, both are of the tailed variety.

Column Nos.8, 9, 10 and 11 are taken from the Kahaum stone pillar inscription, Supia stone pillar inscription of the time of Skandgupta, Bhitari stone pillar of Skandgupta, and Gadhawa stone inscription of the time of Skandgupta. This group of inscriptions carries the Kausambi style further. But the Bhitari stone pillar inscription (Column No.10) shows

influences from the Mathura region. The head-mark is triangular but in some cases it is only notched.

Initial Vowels

The initials vowels are in their old form. Dani (1963:122), while discribing the intitial a in the Bhitari inscription (Col. 10) notices a fundamental change in the forms of a and a. The left limb hangs down from the triangular head and ends in a hook open to the left. But this is true only in the case of Karamdanda; at Bhitari we find only earlier Kausambi form. Dani has drown the letter in his plate (X . 2). The intial e is found at Supia (Col. 9) and Gadhawa (Col. 11) where it is a triangle with the base at bottom.

Consonants

Ka is found in the old style. Kha and ga have straight tops, but ga has triangular foot-mark at the left limb and right limb is longer than the left. Gha has its bottom flat.

Cha is also in the old form, but some times it is beaked type with both upper verticals meeting at two points in the top line. Ja is formed as in Allahabad pillar inscription. Da in Supia stone inscription (Col. 9) is also in the old style. Na in Kahaum inscription (Col. 8) is of the looped variety but at Bhitari (Col. 10) and Supia (Col. 9) we have open mouthed na.

Ta and śa have prolonged right limb. Tha has only an oval with a middle line. Da has its double curve. Dha is elongated. Na is in the looped variety as found in Allahabad pillar inscription. The base of pa is flatened with equal arms. Ba in Supia and Bhitari are of square type. Bha in Kahaum (Column No.8) is in the old style. Ma is of the tailed variety. Ya, ra, la and va retain their old forms, while śa has both curved and straight tops with a foot-mark at the left limb. In the Bhitari inscription, la and ha have rounded bottom. Sa is met with both in looped and hooked types.

Medial Signs

The medial signs follow the style of both the Allahabad inscription and the Kushana records. Medial ā is seen both in the top slant and in horizontal types. Medial i has its left curve extended downwards. The medial long ī follow the old fashion. Medial u has extremely curved type in gu, bhu, ru and su whereas in some letters such as chu, thu, pu, gu, shu and su it is of vertical type. The long ū has the leftward curve attached to the vertical. The medial ri, e, ai, o and au show no change.

Ligatures

Among the conjuncts the letter **ñche** in the Kahaum inscription (Col. 8) shows the cursive form of **ña**. The middle bar in the oval of **tha** is drawn horizontaly when used singly but it is vertical when used in a conjunct such as **stha**. The vertical also gets elongated. **Sha** in **shtha** and **rshe** is formed like **sa** in Kahaum. **Dha** is round backed in conjunct **dhya** of Bhitari inscription.

The Bihar (Biharsharif) stone pillar inscription (Col. 12) forms a group in itself because it has two separate inscriptions written at two separate occasions. The palaeography of both these epigraphs differ. I am specially thankful to Dr. Nisar Ahmad who very kindly handed me over his type-written article entitled 'The Bihar Stone Inscriptions of the Guptas: Some Observations' and allowed me to use it in my thesis here. Although we get the word **skanda** in line 9 of the first part it does not refer to king Skandagupta, son of Kumaragupta I. Here it, perhaps, refers to the mothers (goddesses) of Skanda whose nitches were made in the main temple of Bhadrārya during the region period of Kumaragupta I. Nisar Ahmad rightly points out that perhaps the **dūtaka** of this grant was Anantasena, the son of Prithivishena of the Karamdanda stone linga inscription of the time of Kumaragupta I (G.E. 117 or AD 436). and also the brother-in-law of reigning king. Therefore, this epigraph can be safely dated in the reign period of this king and it has nothing to do with Skandagupta. In line 11 Fleet (1888:49) has restored the word **(Ska(?)ndaguptabate)**, but it should be **(Cha)ndraguptabaṭe.**

The second part of the epigraph belongs to the next generation. A majority of scholars are of the option that (P)urugupta was the issuer of this inscription. Dr.Nisar Ahmed has given several arguments as to why these are two separate documents. We need not go in any detail but will describe the palaeographic features.

Initial Vowels

Among the intial vowels only **ā** is found which normally is found in the Kausambi style; but here the head-marks on the verticals are not noticed. Although Fleet reads the initial **ū** in the second part in line 27 in the word **upāsika** but since the lines from 26 to 33 are not reproduced in the illustration we have not been able to draw it.

Consonants

Ka and **ga** show the regular Kausambi features. **Cha** shows a beak but not so prominent while the lower limb of **ja** tends downward. **Na** leaves a solid dot at its left lower tip which in some other epigraphs takes the form of a loop. The right limb of **ta** is prolonged

but in some cases the left limb emerges from the right one while in other both issue from the head-mark from two separate points. In the second epigraph only first type of **ta** are found. **Tha** in **thi** has a oval shape with a horizontal middle bar. **Da** also shows two variations, i) round base, and ii) flat base; but in the second epigraph it shows double curve. Top of **dha** is almost flat in both the sections. **Na** has a solid loop; but in some cases its loop is noticed in both the parts. **Pa** has equal arms with flat base. **Bha** shows a foot-mark in the left leg. In both the epigraphs the tailed variety of **ma** is seen. **Ya** is tripartite but as sub-scripts it becomes bipartute. The sub-script **ya** in the first part is cursive and rounded while in the second part it becomes angular and flat based. This can be regarded as the test letter to show the palaeographic difference between the two epigraphs on this stone pillar from Bihar. **Ra** is usually serpentine in the first but strait in the second. **La** is of the hooked variety in both the epigraphs. **Va** is almost oval in the first while in the second one it is triangular. **Śa** has a foot-mark in the left leg with the right one extended downwards. Its top is flatened. **Sha** is not met with but Fleet (1888:49) has read **dushkṛitaṁ** in line 12 of the first part. This type of **sha** is seen in the later epigraphs from Bihar and Bengal area. This may be taken as a precurser of the later **sha**. Agrawal (1983:77; for 8 also) reads it **skṛitaṁ**, and he cannot be said wrong in his decipherment. **Sa** has a loop at its lower left. **Ha** is usually seen in the hooked variety with its hook further bent leftwards in the word **havya** (line 4 of the first part). But the immediately preceeding letter **hi** has a more advanced type where the hook takes the form of a tail turned to the right.

Ligatures

As regards conjucts there appear little difference between the two epigraphs; but, as described above the sub-script **ya** is rounded bipartite in the first and angular bipartite in the second one.

Medial Signs

In the attachment of medial signs the Mathura style continues along with the eastern style. The slanting as well as horizontal **ā** medials are seen. **Kā**, **yā**, **vā** are examples of the first practice while the other one is seen in **dā**, **dhā**, **bhā** and **rā**. In **tā** the **ā** medial bends downward; but in **mā** and **sā** it is hook type attached at the top of the right arm. I medial still remains above the head line but **i** in **ni** in line 11 becomes a bit ornamental with its left tip inclining inward. Long **ī** has double curves above the head line in **Kī**, **dī** and **vī**. **U** in **ku** tends to the left while in **gu**, **tu** and **du** it turns right going upwards. But in **nu** and **su** a downward stroke serves the purpose. **Ri** medial is seen in the letters **kri**, **gri**, **tri** and **nri**

and in all cases it is hook type with a opending to right. This practice was followed in the north Indian inscriptions. **E** and **ai** medials are slanting to left while in **o** medial slants are to the left and right. The **au** medial in **nau** and **pau** have the middle stroke upright.

In the next we have studied the palaeographical characterstics of two columns. Column No. 13 details the Sarnath stone Buddha image inscription of the time of Kumaragupta II (GE 154, AD 473). In Column No.14 there are six inscriptions; i and ii) two Sarnath stone Buddha image inscriptions of the time of Budhagupta dated in Gupta year 157, AD 476, iii) Rajghat (Varanasi) stone pillar inscription of the time of Budhagupta (GE 159, AD 479), iv) Bhitari stone inscription of the time of Budhagupta (GE 188, AD 507), v) Sarnath stone inscription of Prakataditya, and vi) Bhitari fragmentary stone slab inscription of Gupta year 221, AD 540.

All these inscriptions carry the Kausambi style further and they have triangular head-mark.

Initial Vowels

In the Sarnath stone inscription of the time of Budhagupta (Col. 13) we get two initial vowels, **i** and **u**. There are three dots for **i**, which are arranged trianglewise. The initial **u** has its downward curve extended further and a line head-mark is also noticable in it.

Consonants

Ka has a tapering vertical. **Kha**, **gi**, **cha** and **ja** are in the old style. **Na** has open mouth with both its outer curves extended.

Ta and **da** are in old type. **Dha** has an oblong shape which narrows at lower portion. **Na** has a closed loop at the left.

Letter **pa** has its arms equal and a line head mark at the left arm. **Bha** is of old style, while **ma** is in tailed variety.

Ya has its left arm merged in the loop and left hook of **la** is broadened. **Ra** continues in its old style of a straight vertical. **Śa** has its top flat. **Sa** is seen both in looped and hooked variety. In the Col. 14 letter **ha** has its right tick curving down.

Medial Signs

As regards the medial signs **ā** medial is in the old style. The medial **ī** has some new changes in its left curve which can be seen in **chi**, **tiṁ**, **bhi**, **mi** and **yi** in the Col. 14 and its left curve is some times extended downwards in the **ri**. In the Col. 14 the long **ī** medial

in letter **vī** is found with longer left curve than the right one. The medial **ū** is both curved and vertical type. The medial **u** also shows both types in which the left curve is attached to the lower tip of the vertical medial **u** sign as in **dhū** and **pū**, but in the **mū** and **shū** the **u** medial is in the form of a hook. The medial for **ṛi**, **e**, **ai** and **o** are in the old style.

Ligatures

Conjuncts follow the style described earlier. The subscript **ya** is always a bipartite but in the Sarnath inscription of Prakataditya (Col. 14) conjunct **dhya** has a tripartite **ya** with the left arm curved inward. Subscript **sha** in **ksha** in the Sarnath inscription of Kumaragupta II (Col. 13) is cursive type while in **kshu** in the Sarnath image inscription of Budhagupta, GE 157, is angular. The leg of **da** in ligature **nda** in the Sarnath inscription of Prakataditya is lengthened.

Column nos. 15 and 16 have been taken from the socalled Nalanda and Gaya spurious copper plate inscriptions of Samudragupta dated in the years 5 and 9 respectively. These are the earliest copper plates of the Gupta period but their palaeography appears to be late. Among these the Gaya copper plate was first published by Fleet (1888:254-57) and he declared that 'The inscription it self, however, is undeoubtedly spurious', forged in about the beginning of the eight century AD. About 44 years after this the Nalanda copper plate was discovered in the year 1927-28 which had almost the same draft and on palaeographic ground it also was declared spusious; although it was thought to be a earlier forgery by a few centuries. Sircar (1965:270 & 273 fns.) thinks that both the plates 'were forged by the same person' some time in the 6th or 7th century AD. Writing about its palaeography Fleet observed that 'It is difficult to suggest any defenite time for the fabrication of this grant; on the one side, some of the characters are antique, e.g. the forms of **k**, **p**, **m**, and **r**, and particularly **h**; on the other side, others are comparatively modern, especially the **sh** in **Valatkaushabhyaṁ,** line 7-8' (Fleet 1888:256). But strangly enough Sircar does not point out to this as a test letter. He takes **gha** as test letter and in connection with the Nalanda copper plate he notes 'that **gha** in lines 3 and 10 approximates the forms of the 6th or 7th century'. (Sircar 1965:271, fn. 1). On this point Dani (1963:129) holds that 'The spusious Gaya plate is nearer in date to the inscriptions of the later Guptas. Which are a step forward in the development of the **Kuṭila** forms'.

Thus almost every scholar is convincved of the forged natures of these copper plates and they fix the date of forgery from 8th to 6th century AD. They also agree that these charters 'were forged to make up the loss of genuine charters of Samudragupta, dated in year 5 and year 9. It should be suggested that the Gupta year begin from the 1st regnal year

of this king. (Sircar 1965:270, fn. 4). But one can argue, 'if the Gupta era started from the 1st regnal year of Samudragupta, in c. 319 AD, his earlier argument will become invalied in which he holds that 'The authenticity of this grant of the Gupta year 5 would indicate a rather unusually long reign period (135 years) for three generations, viz., Samudragupta, Chandragupta II and Kumaragupta I. Three generations ruling for such a length of time is extremely rare' (ibid). In the former argument he suggests that the Gupta era started with the first regnal year of Samudragupta but in later he indirectly wants to suggest that the era might have started with the reign of his father Chandragupta I. It is difficult to understand why in this case he insists the years 5 and 9 to be those of the Gupta year and not the regnal years of Samudragupta which might have started in the fourth decade of the fourth century.

Sircar also repeats the argument of Fleet in which the later observed that the expression **mahānauhaśty=aśvajayaskandhāvārāt** is found in the 'Deo-Barnaka inscription of Jivitagupta II, and the Dighwa-Dubauli grant of the **Mahārāja** Mahendrapala, of A.D. 794-95', and thus the Gaya plate also should be placed in the 8th century. (Fleet 1888:256). But Sircar brings down this date by saying that 'this expression is also found in the grants of Harshavardhana of 627 and 630 A.D. and palaeographically this record may not be later than the time of Adityasena'. (Sircar 1965:273). But Verma (1990:227) points out that this expression is found in the Gunaighar copper plate inscription of Vainyagupta, (GE 188, AD. 507) and thus the date of this expression is further brought down in the beginning of the 6th century AD. If Vainyagupta could have such an army we see no reason which could have prevented Samudragupta from having such a big army; and there is every possibility that Vainyagupta inherited it from Samudragupta.

But even then there are serious grammatical and composing errors in these records and in the light of these we can not be sure if they were forged or not. So far as palaeographic features are concerned our analysis confirms Fleet's observation that 'some of the characters are antique'. He mentions only **sha** as later character but Sircar points out to the letter **gha**. Beside these we can point out to open mouthed **na** the curves of which are extended downwards. But as it is evident from our alphabetic chart, Col. Nos. 15 and 16 a majority of letters confirm to the shapes of the other Gupta inscriptions. The variations can be on account of the engraving defects which is much more manifest in the Gaya copper-plate where a single letter has been engraved by means of several strokes which are disconnected with each other.

REFERENCES

1. Agrawala, P.K. 1983, ***Imperial Gupta Epigraphs***, Books Asia, Varanasi.
2. Ahmad, Nisar, ***The Bihar Stone Inscriptions of the Guptas:*** Some Observations (Unpublished paper), pp. 1-20.
3. Altekar, A.S., 1957, ***The Coinage of the Gupta Empire***, N.S.I., Varanasi.
4. Dani, A.H., 1963, ***Indian Palaeography***, Oxford Univ. Press, London.
5. Fleet, J.F., 1888, ***Corpus Inscriptionum Indicarum*** Vol. III, Varanasi (reprint 1963).
6. Goyal, S.R., 1967, ***A History of the Imperial Guptas***, Bhargava Bhushan Press, Varanasi.
7. Gupta, P.L., 1979, ***Prāchīn Bhārat Ke Pramukh Abhilekh*** (Hindi) Pt. I, Annapurna Prakashan, Varanasi.
8. Sircar, D.C., 1965, ***Select Inscriptions***, Vol. I, University of Calcutta, Calcutta (reprint).
9. Verma, T.P., 1971, ***The Palaeography of Brahmi Script in North India***, Siddharth Prakashan, Varanasi.
10. Verma, T.P., 1990, ***Purābhilekh Chayanikā*** Pt. I (Hindi), Siddhartha Prakashan, Varanasi.
11. Verma, T.P., 1992, Samudragupta: The Founder of the Gupta Dyanasty, ***Reappraising Gupta History for S.R. Goyal***, Aditya Prakashan, New Delhi.

* * *

CHAPTER III

EASTERN INDIAN STYLE: THE REGION OF BENGAL AND BIHAR

In this chapter we have studied the palaeographic features of the inscriptions mostly from Bengal which are engraved on the copper plates, and those epigraphs which give genealogical details on seals on silver or terracotta. Thus, the whole chapter is divided in to two groups. In the first group we have taken the copper plate inscriptions. This change of writing material makes some differences in the palaeographic features from those which have been dealt with in the last chapter. According to Dani (1963:130) 'The Susunia rock style shows firm angular lines but the style as known from these copper plates may be termed 'fugitive' implying three things (i) looseness in drawing the lines on the part of the writer (ii) a tendency to curve the angles, as in **pa** and **ma**, and (iii) a preference for extremely cursive forms, as in **la** and **ha**. As a result of the first feature the head-mark becomes a mere line. No attempt is made to give the letter their full forms. This defect is obviously due to the metal worker, who incised the inscriptions on the plates rather than to the scribe himself. As far as it is possible to get at the latter's hand, there does not seem to have been any deliberate attempt to deform the letters'.

Detail of the copper-plate inscriptions allotted to each column is as follows:-

Col.17 Dhanaidah copper-plate inscription of the time of Kumaragupta I, GE. 113(AD 430-31)

Col.28. Kalaikuri (Sultanpur) copper-plate inscription of the time of Kumaragupta I, GE. 120 (AD 439).

Col.18. Damordarpur copper plate inscription of Kumaragupta I, GE. 134 (AD 444).

Col.19. Damodarpur copper-plate inscription of the time of Kumaragupta I, GE. 128 (AD 447).

Col.20. Baigram copper-plate inscription of the time of Kumaragupta I, GE. 128 (AD 447).

Col.21. Jagdishpur copper-plate inscription of the time of Kumaragupta I, GE. 128 (AD 447).

Col.22. Paharpur copper-plate inscription of the time of Budhagupta, GE. 159 (AD 479).

Col.23. Damodarpur copper-plate inscription of the time of Budhagupta, GE. 163 (AD.482).

Col.24. Damodarpur copper-plate inscription of the time of Budhagupta.

In the following description we have attempted to point out only major variations and forms. The writing on these copper-plates is an extention of the script found in the Middle Ganga Valley. The main difference is on account of the change of writing material. Other pecutiarities, which are very limited, are due to personal mannerism which gradually developed into local traits.

Initial Vowels

The initial vowel **a** in Column Nos.3, 4, 5, 6, 7 and 9 is seen angular in form of the early Gupta type, but in the no. 2 (the Kalaikuri (Sultanpur) copper-plate we have a southern variety of **a** with its right vertical curved to the left. In nos. 5, 6, 7, 8 and 2 the intial **a** is in extremely curved type. The intial **i** is formed in the old style, in which two dots are placed on the left of vertical in nos.5, 6, 7 and 2, and in no. 7 the vertical has a line head-mark also. In the Kalaikuri (Sultanpur) inscription (no.2) the long **ī** is formed like **i**, but it has an additional dot to the right of the vertical; and the vertical has a triangle head-mark. In 5, 6, 7 and 2 the initial **u** has an extremly downward curved tip. In nos. 5, 6, 7 and 2 the older triangle type **e** is seen but its apex is upwards; it is found in later Gupta inscriptions.

Consonants

Ka has its mid bar curved. In nos. 6 and 9 **kha** has a flat top with a foot-mark at the left limb. **Ga** is also flat topped with a foot-mark at the left limb; and right limb is longer than the left one in **ga**, **ta**, **bha** and **śa**. **Gha** has a flat bottom and a line head-mark at the left limb in 5 and 7.

Cha, **ja** and **ṭa** are in the old form but the lower arm of **ja** is bent down in 8 and 9. **Ṭa** is flat topped, and in 2 **ṭa** is flat topped with a rounded tick on the right. **Ṭha** is of the circular type in subscript **shṭha** in 3. In Paharpur and Kalaikuri (Sultanpur) inscriptions **ḍha** has an angular back. **Ṇa** is of the open mouthed variety and in the Baigram, Jagdishpur, Kalaikuri (Sultanpur) it is of looped variety with its mouth open as is usually found in the north.

Ta is in its old style. **Tha** has an oval with a horizontal mid-line. **Da** has double curve. **Dha** is oblong and in some cases its lower end is narrowed. **Na** is of the looped variety.

Pa is angular with its arms equal. **Pha** is also of the angular type with its equal arms in 5, 6, 7 and 2. **Ba** is of the square type in 6 and 8, while in 2 it is rectangular. **Bha** is of the angular type and **ma** is of the tailed varriety.

Ya is in the tripartite style and in 2, 3, 8, and 9, it has a loop at the left arm. **Ra** has a straight vertical. **La** and **ha** are of the hooked variety. **Va** has its base triangular.

The top of **śa** is rounded and its right limb is longer than the left. **Sha** is very similar to the looped variety of **sa** in 5 and 8; a feature which becomes prominent in later period. **Sa** is of the looped variety.

Medial Signs

The old Kushana style of a top slant for the medial **ā** is not found here; now it is a horizontal line with a tick on the right in **kā**, **chā**, **tā**, **dā**, **nā**, **pā**, **bhā**, **rō** and **sā** etc. While in **gā**, **nā**, **thā**, **dhā**, **bā**, and **śā**, it is attached to the lower right side.

Medial **i** and **ī** are in the old form while medial **u** is of the extremely curved type in **ku** and **ru** and it is of vertical type in **tu**, **pu**, **yu**, **shu** and **su**; it is turned upward in **gu** and **du**. Long **ū** is also in old style. It has the left curve attached to the vertical of medial **u** in **dū**, **pū**, **mū** and **yū**; and this attachment is on the right of an upturned medial in **bhū**. The medial **ri**, **e**, **ai**, **o** and **au** show no change.

Ligatures are noramlly formed by placing consonants one upon the other in their natural order of pronunciation. The letter which is pronounced first was placed above the letter which was pronounced next. In some cases **tha** has a dot in a circle in 16 and 8. Conjunct **ña** in **ñcha** is in the cursive form in 2, 3, 5, 6, and 8. In sub-script **tha** the middle bar is vertical in **rtha**, **stha** in 3, 5, 7, 8 and 2. Sub-script **chha** is double looped in 5, 7, 8, 9 and 2. **Na** also has looped variety in 5, 8 and 2. For conjunct **brā**, the tick of medial **ā** is attached with lower tip of letter in 2, 3, 5 and 7.

In the next group we have three inscriptions:-

Col.25. Nandpur copper-plate inscription of GE. 169 (AD. 488).
Col.26. Gunaighar copper-plate seal and inscription of Vainyagupta (c. AD. 507).
Col.27. Damodarpur copper-plate of king (—) gupta of GE. 224 (AD. 543).

Initial Vowels

In the Damodarpur inscription (Col. 27) initial **a** is of the angular variety of the early Gupta script but it has a slightly bent lower tip. In the Nandpur inscription (Col.25) **a** has a curved attachment at the bottom while in the Damodarpur (Col.27) **ā** has a horizontal line with a tick on the right. Initial **i** is in the old style in which two dots are placed at the left of a vertical in 27. The initial **u** extends its curve upwards, but has a line head-mark in the Nandpur and Gunaighar copper-plate inscriptions. The triangular shape of initial **e** is maintained in the Nandpur and Damodarpur inscriptions, which is a continuation of the early Gupta practice.

Consonants

Ka has its middle bar curved. **Kha** and **ga** are flat topped and **ga**, **ta**, **bha** and **śa** have prolonged right limb in the old style.

Cha in the Nandpur is formed on the line of Allahabad pillar inscription while **chha** is double looped at the base. The lower arm of **ja** is slightly bent at the tip in Nandpur and Damodarpur inscriptions. **Ṭa** is flat topped in Gunaighar and Damodarpur inscriptions. **Na** is of the open mouthed, and in the Nandpur it is of looped variety. **Tha** is now changed in its bulged form in Nandpur and Damodarpur inscriptions while **da** and **dha** maintain their old form. **Na** is of the looped variety and its right curve is prolonged in Nandpur inscription.

Pa is flat bottomed and equal armed. **Ba** of Damodarpur inscription is rectangular type. In the Nandpur inscription **bha** has a slight bent at the bottom of right limb. **Ma** is of the tailed variety and acute angled at the right. **Ya** has its tripatite form with a loop at the left limb. **Ra** maintains straight vertical. **La** and **ha** both are of the hooked variety. **Va** is of the triangular type. **Sha** is replaced by the form of **śa** in Nandpur and Damodarpur inscriptions and it is equal armed. Hooked **sa** is seen in Damodarpur.

Medial Signs

The medial vowel **ā**, **i**, **ī** and **u** show no change but in the Damodarpur **nu** is formed with the vertical type of medial **u**; it has both varieties of turned down and turned up. The medial **i** prolongs its curve to the bottom of the letter. Long **ū**, **ṛi**, **e**, **ai**, **o** and **au** maintain

the old style. In the Nandpur **go** has two varieties; (i) it has a top slant of **e** and an extremely curved tick at the right bottom for **ā**, and (ii) it has a vertical top line for **e** and curved attachment with the right prolonged limb for **ā**. First style is used for **no** and second is used for **dho** and **bo**.

Ligatures

Sub-script **sha** is not in the old style of looped **sa**, when it is used in **kshe**, and it has equal arms, full length mid line and rounded base in Gunaighar copper plate. **Ña** is cursive in **ñcha** in Nandpur and Damodarpur. **Tha** is horizontal when it is used as subscript.

Next we will take up the Bhitari Silver Seal of Kumargupta II, Column no. 29. It also has similar forms with Middle Ganges Valley. No initial vowels are found from this record.

Consonants

Ga has its flat top and prolonged right limb and a bent at the lower tip of left limb. **Gha** is equal armed and with its right half curving and left one slanting.

Cha is formed in old style. **Ja** has its three arms as usual. **Tha** is in the bulged form. **Da** is double curved. **Na** has a solid loop.

Pa is equal armed and angular. **Bha** is of the angular variety with both the limbs issuing from the top. **Ma** is tailed. **Ra** has its vertical straight, while **va** is of the triangular variety. **Ha** is of the hooked type in **ha.**

Medial Signs

Ā medial in **jā** is turned to left while **dā**, **bhā**, **rā** and **hā** have right slants for the **ā** medial. **I** is formed in old style. Medial **u** has an extremely curved attachment in **ku**, **gu** and **ru** while **nu**, **pu** and **mu** are having the vertical type of medial **u**. For the long **ū**, **pū** has its left curve attachment to the vertical type of the medial **u**. **Pri** is formed with the hooked type of northern medial **ri**. Medial **e** has a top slant in **de**. Medial **o** and **au** are in old variety in **jo**, **to** and **to** and **pau**.

Ligatures

In this silver seal the conjuncts are formed in the Middle Ganges Valley style.

In the next group Column No. 30, we have two terracotta seals from Vaisali;

(i) Vaisali Terracotta Seal of Mahadevi Druvaswamini and

(ii) Vaisali Terracotta Seal of Ghatotkachagupta.

These records show the Kausambi style and are very close to the Allahabad pillar inscription. The head-mark has a definite line mark. No initial vowels are known in these seals.

Consonants

Gha is flat bottomed and equal armed. **Cha** is rounded and **ma** has a circular appendage which is the continuation the old style, but triangular appevidages are more common.

Medial Signs

Medial signs also are attached in the old fashion. For the medial **ā** an upward vertical is attached with the middle arm of **ja** and a horizontal line is used in **tā**, **mā**, **rā** and **hā**. Medial **ī** and **i** also follow the old style. Medial **u** is turned upward in **gu**. **E** in **de** has a top slant. Medial **o** has two top strokes of old type.

Ligatures

Dha is oblong type in **dhru**. Sub-script **da** has angular back and **na** is of looped variety in **nda**. **Pa** is equal armed and flat bottomed in **pta**. **Ra** is formed with a left turned broad curve in **dhru** and **śri**. **Ya** is hooked and **va** is triangular in **sya** and **sva**. **Śa** has rounded top and prolonged right limbs with a full length mid line in conjunct **srí**. **Ṣa** is formed in looped type in **sya** an **svā**. In general it can be remarked that in these terracotta seals eastern style of writing can be seen.

In the Column no.31 we have taken two Nalanda seals: i) Nalanda Terracotta Seal of Narasimhagupta and ii) Nalanda Terracotta Seal of Kumargupta II. No initial vowels are found in these seals.

Consonants

Ga has its flat top and prolonged right limb. **Gha** is equal armed and flat bottomed. **Cha**, **ja** and **ta** are formed in old style. **Tha** has an oval with a middle bar. **Na** is close looped variety. **Pa** is equal armed and angular type. **Ma** is tailed and **ra** has its straight vertical. **Va** has a triangular shape.

Medial Signs

Medial **ā** in **ja** has an upturned vertical attached with the middle arm while in **bhā** and **hā** it is slanting at the top, and a horizontal stroke in **dā**, **mā** and **rā**. Medial **i** is formed with the left rounded curve. Medial **ī** is formed in old style in **hī**. There are three styles

for medial **u**. For instance, an upward tick in **gu**; downward extremely curved tick in **ku** and **ru**, and vertical type in **nu**, **pu** and **mu**. **Ri** in **gri** is of hooked type and **de** has a top slant. **To** and **to** have two top strokes for medial **o**.

Ligatures

The sub-script **chha** is double looped in **chchha**. **Da** is round backed in **ndu**.

In the Column No. 32 we have three terracotta seals:

i) Nalanda Terracotta Seal of Visnugupta,

ii) Nalanda Terracotta Seal of Buddhagupta and

iii) Nalanda fragmentary Terracotta Seal of Vainyagupta.

No initial vowel is found in these seals.

Consonents

Ga is flat topped and prolonged right limb and a foot-mark at the left limb is seen. **Gha** has its right half curved and its left limb is sloping. **Ja** has its three arms straight. **Dha** has its lower end narrowed. **Na** is of the looped variety and prolonged right limb. **Ma** is tailed and **ra** has a straight vertical. **Va** is triangular type.

Medial Signs

Medial **ā** has a top slant. Medial **i** has a left rounded curve. Medials **u**, **ri**, **e**, **ai** and **o** are formed in old style.

Ligatures

Pa has its left arm bent in sub-script **tpā**.

Although we have selected epigraphs for this chapter from Bihar and Bengal area which shows an extension of the script of the Middle Ganga Valley, we have a variety of materials used for writing here. These are copper plates, silver seal and terracotta seals. Naturally, one must expect a variation in the writing in these materials. But at the same time it should be pointed out that an underlying unity in script can be noticed in all these epigraphs. At the same time, with the passage of time, some new forms also evolved and some adjustments were made according to local needs and pronounciations. In modern Bengali we do not find separate signs for **sa** and **sha**; and this practice in writing began in the Gupta period in this area. It should also be noted here that the present Bengali script showed its individuality in about the twelth century AD and it continued the Middle Ganga

Valley traints, with minor changes till that time.

REFERENCE

1. Dani, A.H., 1963, ***Indian Palaeography***, Oxford Univ. Press, London.

* * *

CHAPTER IV

WESTERN STYLE : MATHURA REGION

Mathura became a great centre of writing activities about the beginning of the Christian era under the Śaka-Kshatrapas. During this period the new edged pen was introduced and on this account the verticals of the letters show tapering thickness. Other limbs of the letters also got special attention on account of which the ovals became triangular and the semi-circles took angular shapes. The verticals of **gha**, **pa**, **sa**, etc. were equalised. The letter heads got triangular head-marks. The medials also showed a change in their formation. Under the Kushanas the style of writing rapidly changed. As we have already stated the art of writing was gaining popularity and spreading in other parts of the country also. Some features of the Mathura style were copied in other regions also to different degree of skill. But it seems that, perhaps on account of regular use and greater practice, the Middle Ganga valley developed some more advanced lettters which were noticed in the Kushana inscriptions of Kaniska year 4 and 14, and also in the Huvishka inscription of year 33, all coming from Mathura. In these inscriptions we find tailed variety of **ma**, looped variety of **sa** and hooked variety of **la** and **ha**. Dani (1963:86) rightly observes that 'these two inscriptions of Kanishka and Huvishka are intruders in this region... their affinity lies elsewhere, with the Kosam group'. This goes to show that although different regions were developing their own traits but some sort of interaction was also at work.

Among the Imperial Gupta inscriptions we have listed eight epigraphs in the Mathura region which have been grouped into five columns numbered 33 to 37. Their description is as follows:

Col.33. a. The Mathura stone pillar inscription of Chandragupta II, GE. 61.

b. Mathura fragmentary inscription of Chandragupta II.

Col.34 Mehrauli iron pillar inscription of king Chandragupta II.

Col.35. a. Mathura stone Jain image inscription of Kumaragupta I, GE. 113.

b. Govindanagar (Mathura) stone Buddha image pedestal inscription of the time of Kumaragupta I, GE. 115.

c. Mathura stone image inscription GE. 135.

Col.36 Indorkheda copper-plate inscription of the time of Skandagupta, GE. 146.

Col.37 Mathura stone pedestal inscription of the time of Budhagupta, GE. 161.

A look at the above epigraphs will show that these are engraved on a variety of materials. No.7 is a copper-plate while no.3 is an iron pillar; rest are on stone. The technique and tool of writing on each was different. The metal worker's tool on copper plate and, perhaps, also on iron pillar was different from that of the stone cutter who engraved on the stone pieces. But one thing seems common to all these mediums. The writer first wrote on the material with the help of ink and pen or some other similar tool. The engraving was done afterwards. Here one thing can be noticed in the Mehrauli iron pillar inscription. The letters of the first line are smaller than the remaining five lines. After completing the first line the writer, perhaps, realized that he can utilise some more space around the face of the pillar and consequently he not only enlarged the shapes of the letters but also left enough space between the letters. Now at this stage it is difficult to say any thing about the technique of writing and engraving. It may also be possible that the writer used to write one line first and after it was engraved by the metal worker, he wrote the second one. But so far as the palaeographical details of the individual letters are concerned, it seems that we are not in a position to determine the original hand of the writer because the metal worker may have contributed his own element in the engraving, however, he might have been careful in his work. Therefore, there is bound to be some difference between the palaeography of writing of the original draft and the engraver; but at the same time differences between the engraver's hand on various medium also be accpeted because of the differences in the engraving tools and the hardness of the material. Discussing on the point Dani (1963: 141) observes: 'The engraver or the metal worker would not create new forms of the letters, but would only distort the given forms to suit his graving tool.' He further states that, 'It is therefore hardly necessary to assume a 'hieratic' style for the inscriptions and a 'literary' one for the manuscripts, unless we have defenite evidence for a particular set of inscriptions. The writers had a common style and in general they must have followed the practice of the day, except for their individual mannerisms.' Therefore, in all the three mediums the same style of writing was used, and if any apperent difference is seen it is only on account of difference in medium etc. and in individual writing style.

Further it should be noted that although a definite Mathura style is dominant in all these inscriptions but in some instances the influence of Kausambi style also can not be denied. The Mehrauli iron pillar inscription is a good example of this. We shall discuss this when we comment upon this inscription later on.

First we will take up Column No.33 in which we have two mathura inscriptions of Chandragupta II.

(i) Mathura stone pillar inscription of Gupta year 61 (AD. 380).

(ii) Mathura fragmentry stone inscription.

In these two inscriptions we find further development from the earlier Kushana style. Head-marks are formed in both types, notched and triangular.

Initial Vowels

The initial vowel **ā** is formed in the form of a hook attached to the lower tip of the vertical of **a**. Initial **e** has its triangle type with flat top.

Consonants

Ka has a triangular head mark and curved middle bar. **Ga** has flat top, prolonged right limb and a foot-mark at the left limb. **Cha** is beaked type in which two arms of **cha** are meating with a line head-mark. **Ja** is usual with its three arms. **Ña** is open mouthed type.

Ta is angular with prolonged right limb and triangular head-mark. **Tha** is oval with a mid line. **Da** is double curved and **dha** has its lower end narrowed, while **na** has a closed loop.

Pa is angular, equal armed, and has a notched head-mark at the left limb. **Bha** is angular with triangular head-mark. **Ma** is in two varieties; tailed and triangular looped base. **Ya** has loop at the left arm and slanting right half. **Ra** is a straight vertical. **La** has its firm base with left hook broadened. **Va** is of the triangular variety. **Śa** is flat topped, prolonged right limb with a foot-mark at the left limb. **Sha** is equal armed with a full length mid-limb and head-mark at the left limb. **Sa** is of the hooked variety with an acute angle at the right bottom, and triangular head-mark. **Ha** is equal armed with its right tick curving down and a triangular head-mark.

Medial Signs

In these two epigraphs all medials are of the eastern type. Medial **ā** is usually of the horizontal type but in **jā** an upturned vertical attachment is given in the middle arm of **ja**.

The lower end of the vertical of **rā** is curved to the left. Medial **i** in **khi** is turned leftward at the top, and similar is the case in **ti** where it is attached at upper tip turning to left. But in **di**, **dhi**, **ni**, **ri**, **li**, **vi** and **hi** the **i** medial extends below the head-mark. While in long **ī** the left limb is extended to the right above the right limb in **kī**. Medial **u** has two types: i) extremely curved in **ku** and **gu** and, ii) of the vertical type in **pu** and **mu**. **Pu** is formed with the left curve attachment to the vertical type of the medial **u**. **Kṛi** and **gṛi** are formed with the hooked type of the northern medial **ṛi**. **E** is also formed in two types, such as a top slant in **ge** and **me** and the horizontal type of medial **e** in **de**, **re**, **se** and **he**. Medial **ai** has a horizontal and a top slant in **kai** and **nai.** Medial **o** and **au** are formed in old style with two and three top stokes respectively.

Ligatures

The sub-script **chha** is double looped in the conjuct **chchha**. **Ba** is of the square type in **mbo**.

Column No. 34 represents the Mehrauli iron pillar inscription of king Chandra. The forms of some of the letters are very similar to those of the Middle Ganga Valley or Kausambi style, and according to Dani 'There is no doubt that the inscription was written in the early fifth century A.D. by a writer from the Middle Ganga Valley.' But, however, its western affinity is undoubted.

No initial vowels are found from this inscription.

Consonants

Ka is formed with curved middle bar. **Kha** and **ga** are flat tooped, and have a triangular foot-mark at the left limb while the right limb of **ga** is prolonged. The beak of **cha** is drawn up to the line of the head-mark. **Ja** has three arms. **Na** is open mouthed. **Ta** and **śa** are formed with the prolonged right limb. **Na** is looped while **pa** is angular with equal arms and head-mark at the left limb. **Bha** is of the angular variety. **Ma** is tailed and **ya** has a thickening at left in place of a loop. **Ra** is formed by a straight vertical. **La** and **ha** are hooked. **Va** is of the triangular style. **Sa** is flat topped and prolonged right limb, with a foot-mark at the left limb.

Medial Signs

Flourishes in the medial signs are clearly seen in this inscription. Medial **ā** is formed in the old Kushana style. Medial **i** has some noticeable change with the upcurled form, and in long **ī**, a rectangular head is added to the long vertical of the medial **ī** in **kī**, while **ī** in **tī** is formed in old style. Medial **ū** has its upturned curve in **bhu** and is vertical type in **mu**

and **su**. Medial **ū**, **ṛi**, **e**, **ai**, **o** and **au** are formed in old style.

Ligatures

Ña has a cursive form in **ñcha**; **tha** is horizontal in **sthi** while **sha** has its mid-line slanting downwards.

In the Column No. 35, we have three inscriptions of Kumaragupta I:

i) Mathura stone Jain image inscription of Kumaragupta I, year 113.

ii) Govindanagar Mathura stone Buddha image pedestal inscription of the time of Kumaragupta I, GE 115.

iii) Mathura stone image inscription, year 135.

In these inscriptions some new forms are seen. Head-mark is formed with solid triangle.

Initial Vowels

In the initial **a** the upper end of left limb is curved to the left outwards and the lower left is found with a triangular knot.

Consonants

Ka has its middle bar curved. **Kha** is round topped. **Ga** is flat topped and **gha** has its base at right half sloping and the left curving with a triangular head-mark at the left arm.

Cha is beaked type, and its pointed beak moves upwards. The lower arm of **ja** is slanting downwards. **Na** is open mouthed.

Ta is angular type while **da** is double curved with triangular head-mark. **Dha** has its lower end narrowed. **Na** is formed with a closed loop at the base.

Pa and **pha** are angular type and equal armed with a head-mark at the left arm. **Ba** is of the square type. **Bha** is angular and **ma** is tailed.

Ya is in the tripartite form with a loop at the left arm. **Ra** has its vertical straight. **La** and **ha** are formed with a hook and firm base. **Va** is triangular and **sa** is of the hooked type.

Medial Signs

Medial **ā** is formed with a top slant in **khā**, **chā** and **tā** and an upturned curve in **jā** and **nā** while in **mā** its horizontal type of medial is extended downward to the bottom. **Ā** in **lā** has two types (i) top slant and (ii) a horizontal attached with the middle of its vertical.

Medial **i** is formed with its curve to left but in some cases it is extended below the head-line of the letter in **dhi**, **ni** and **vi**. Medial for long **ī** has its left curve longer than the right one which goes over the right one. Medial **u** is found in three varieties of upturned hook in **gu**, downward left hook in **ku** and **tu**, and vertical type in **nu**, **pu**, **mu** and **su**. Medial **ri** is formed with a right turned hook. Medial **e**, **ai**, **o** and **au** are formed in the eastern style.

Ligatures

Dha is round backed in conjunct **dhya**. **Ña** has its cursive form in **ñcha**, in which **cha** is attached with its middle arm. **Da** is angular, beaked in **ddha** and **dri**. **Sa** is of the looped type in **sta**, while it is hooked in **sya**.

The Column No. 36 is taken from the Indorkheda cooper plate inscription of the time of Skandagupta, dated in the GE 146 (A.D. 466). It represents the Mathura style of head-mark, formed by a simple line.

Initial Vowels

Intial vowel **ā** has its left limb outward at the upper end and inward at the lower end; left turned hook is attached with its vertical at the bottom. A line head-mark is present on the vertical. Initial **i** has its three dots which are arranged trianglewise with its apex downwards.

Consonants

Kha has a line head-mark. **Ga** is round topped and a foot-mark at the left limb. **Cha** is of the pointed beaked type. **Chha** is double looped while **ja** is three armed. **Ṭa** is flat topped. **Ḍa** has its serpentine vertical. **Ṇa** is open mouthed and its outer curve extended. **Ṭa** is flat topped while **ṭha** is oval with a mid-line. **Ḍa** is angular backed. The lower end of **ḍha** is pointed and **ṇa** has its loop closed at the base. **Pa** and **pha** are of the angular variety with line head-mark at the left arm, and they are equal. **Ba** is of square type. **Bha** is angular with a line head-mark. **Ma** is tailed. **Ya** is formed with a slanting right half and curving left half. **Ra** is a straight vertical. **La** has its firm base and line head-mark. **Va** is triangular with line head-mark. **Śa** has its rounded top and foot-mark at the left limb. **Sha** is equal armed with firm base and line head-mark at the left limb. **Sa** is hooked with an acute right angle and line head-mark. **Ha** is hooked.

Medial Signs

Medial vowel **ā** has its top slant but in **śā** a curve is attached at the middle of the right vertical. Medial **i** has its leftward rounded curve and the left arm is longer than the right

in medial sign of long **ī**. Medial **u** is found in two types: left turned hook in **gu**, **tu** and **ru**, and vertical type in **du**, **nu**, **pu** and **bu** etc. The long **ū** medial in **mū** has a left curve, attached to the vertical type of medial **u**. **Ri** has its hook turned to the right. Medial **e** has one and **ai** has two top slants. **O** has two and **au** has three top strokes.

Ligatures

Na is angular type in **gna**, **nna** and **ghno**. **Ña** is cursive in **ñcha**. **La** is equal armed in **lgu** and **lya**. **Tha** is horizontal in **Sthi**. **Ha** is equal armed in **hmo**.

In Column No. 37, we have listed the Mathura stone pedestal inscription of the time of Budhagupta, dated in the Gupta year 161 (AD 480). The influence of the Kausambi style of the Middle Ganga Valley is to be seen in this inscription also. Head-marks are formed in two varieties, i.e., triangular and line head-mark.

Initial Vowels

Initial vowel **a** has triangular head-mark at the upper left limb and the lower curve of left limb is turned outward. Initial **e** is of the triangular type with flat top and straight right arm with its apex downwards.

Consonants

Ka has its curved middle bar. **Ga** is flat topped with prolonged right limb and foot mark at left limb. **Cha** is of beaked variety. **Ja** maintains the form of the Roman capital letter **'E'**.

Ta is angular type with line head-mark. **Tha** is oval type with a mid-line. **Da** has angular back. **Dha** has its lower end narrowed and it looks like the reverse form of the Roman capital letter **'D'**. **Na** is formed in angular type.

Ba is square type, while **bha** is angular and its two arms are joint by a line head-mark. **Ma** is tailed and **ya** is tripartite. **Ra** has its vertical straight. **La** and **ha** are hooked with their firm bases. **Va** is triangular type. **Śa** is round ropped and foot mark at the left limb while its mid-line is short. **Sha** is equal armed and flat based. **Sa** is formed in hooked variety.

Medial Signs

Medials have no noticeable change. Medial **ā** and **i** are in Kausambi style. Medial **u** has two varieties of vertical type and hooked. Medial **ri** has its hook right turned. Medial **e**, **ai**, **o** and **au** are formed in old Kausambi style.

Ligatures

Na is angular in **ngi**. **Sha** has no mid line in **shta** and **shtha**.

REFERENCE

1. Dani, A.H., 1963, ***Indian Palaeography,*** Oxford Univ. Press, London.

* * *

CHAPTER V

MALWA STYLE : MADHYA BHARATA

The writing in this area was prone to influences both from the north and the south because of its geographical situation. Under these influences certain new forms and traits developed which can be classed as a regional style. In the fourth century AD the Guptas took over this area and the Eran inscription of Samudragupta (Column No. 38) and the Udayagiri inscriptions of Chandragupta II, dated in the Gupta era 82 (Column No. 40) show solid square head-makrs.

To this chapter we have allotted eleven columns which detail fifteen inscriptions of the Imperial Guptas from this region. These are as follows:

Col.38. Eran Stone Pillar Inscription of Samudragupta.

Col.39. Vidisa Stone Jain Image Inscriptions of the time of Ramagupta :

- **a.** On the Image of Chandraprabha.
- **b.** On the Image of Pushpadanta.
- **c.** On the Image of Padmaprabha.

Col.40.a. Udayagiri (Fleet No.3) Inscription of Chandragupta II, GE 82 (AD 401).

- **b.** Sanchi Stone Pillar Inscription of Chandragupta II, GE 93 (AD 412).
- **c.** Bilsad Stone Pillar Inscription of Kumaragupta I, GE 96 (AD 415-16).

Col.5. a. Udayagiri (Fleet No. 61) Inscription of the time of Kumaragupta I, GE 106 (AD 425-26).

Col.41. Tumain Stone Inscription of Kumaragupta I & Ghatotkacha, GE 116 (AD 435-36)

Col.42. Sanchi Stone Rail Pillar Inscription of the time of Kumaragupta I, GE 131 (AD

450-51).

Col.43. Mandasor (Dasapura) Stone Inscription of King Prabhakara mentioning Chandragupta II and Govindagupta, ME 524 (AD 467).

Col.44. Mandasor Stone Inscription mentioning Kumaragupta I and Bandhuvarman, ME 493 & 529 (AD 436 & 473).

Col.45. Eran Stone Pillar Inscription of the time of Budhagupta, GE 165 (AD 484).

Col.46. Shankarpur Copper Plate Inscription of Budhagupta and Harivarman, GE 168 (487-88).

Col.47. Eran Stone Pillar Inscription of the time of Bhanugupta and Gopraja GE 191 (AD 510).

But before we begin our description of individual letters of these epigraphs it should be pointed out that the Udayagiri inscription of Śāba Virasena, under Chandragupta II, (Col. 2) introduced the Kausambi style in this area. The influence of this style can be seen in the subsequent inscriptions of Malwa, although the individual personality of this style continued to grow.

Among these the Eran stone pillar inscription of Samudragupta (Column No.38) is the earliest which was written in this style with solid square head-mark, although occasionally triangular and line head-marks are also seen. This and some of the following epigraphs differ from the eastern style in two respects: i) the additional curve of the long verticals at the tip, and ii) the notches at the sides of some letters. This can be considered as the ornamental eastern style of Malwa of fourth century AD. The letters are influenced with the southern style. The head-marks are given at the top left end of the verticals in case where there are more than one verticals such as in **gha**, **pa**, **ma** and **ya**.

Initial Vowels

No initial vowel is found here.

Consonants

The new difference from the eastern style seen in this style is an ornamental curve attached to the lower end of long vertical of **ka** and **ra**. **Ka** has its solid square head-mark and curved middle bar. **Ga** is equal armed with round top. The right half of **gha** is slanting downwards. **Cha** is beaked type with solid square head-mark. **Ja** is formed by three arms like Roman capital letter 'E'. **Na** is open mouthed.

921972

Ta is angular type, its two arms are joined by a line head-mark. **Tha** has its circle having a dot within. The lower end of **dha** is pointed. **Na** is looped while **pa** is equal armed. **Ba** is square type and **bha** is angular type. **Ma** is tailed. In the letter **ya**, Mathura style loop at the left arm sinks into insignificance and its right half is slanting. **Ra** is formed with an ornamental curve at the lower tip of the vertical. **Va** is triangular type. **Śa** is round topped. **Sha** has equal arms while **sa** is formed in looped variety, which is eastern style.

Medial Signs

Medial vowel for **ā** is horizontal type with a tick on the right. Medial **i** is formed in the eastern style while long **ī** has its prolonged right limb than the left. Medial **u** has its upturned hook in **gu**, **tu** and **śu**; and left turned downward hook in **thu**, **dhu**, **pu** and **mu** etc. Long **ū** medial in **bhū** has an upturned **u** medial, which is crossed by a curved attachment below the letter. Medial vowel **ṛi** has its round curved type of the southern style in **nṛi**, **pṛi**, and **bṛi**, etc. Medial **e** is horizontal. Medial **ai** has two top slants in which one is horizontal. Medial **o** has two and **au** has three strokes applied in the eastern style.

Ligatures

Na is two armed in **nkra** and **nha**. **Na** is angular in **tna**. **Ra** is round curved type in conjunct **tra**. Subscript **ya** is hooked and very ornamental. The upper curve of **la** is extended in **lka** and **lyah**. **Sha** has its mid line slanting downwards in **shta** and **shva.**

In the Column No. 39 we have three inscriptions of Ramagupta as stated above. We have taken them together.

Initial Vowels

Intial vowel **a** is formed by angular upper left stroke and its right vertical is curved at the lower tip while the medial sign for **ā** is attached in the lower part of the letter in the form of a horizontal tick. The base of initial **u** is turned up and has a triangular head-mark.

Consonants

Ka has an ornamental curve at the lower part of the vertical and middle bar is curved. The left arm of **ga** is notched. **Cha** has its rounded variety of the beaked type in which it hangs through a vertical. **Ja** is double curved. **Na** is open mouthed and **ta** is of the curved variety. **Da** has its round back with its mouth open to right. **Dha** has its lower end narrowed. **Na** is looped. **Pa** is of the tailed variety with its left arm bent. **Bha** is notched and **ma** is broad looped and its loop is tilted to the left. The lower tip of **ra** is curved. **La** has its right vertical curved towards left at top. **Va** is rounded. **Śa** is round topped and

Banaras Hindu University, Library
Acc No. 921972
Date ....

half mid-line. **Sha** has its left arm bent in conjuncts **shpa** and **shya**. **Sa** is hooked; while the vertical of hooked **ha** is tilted to the left.

Medial Signs

Medial **ā** is formed by a horizontal line with a tick on the right. The medial **i** has a beautiful ornamental round curve which is curled outward in **ti, ri** and **śi**; and curled inward in **dhi**. **Gu** has its upturned medial **u** while **pu** is formed by the vertical type of **u** medial. The medial sign for **ū** in **lū** has a left ward curved attachment to vertical type of the medial **u**. Medial **e** is ornamental horizontal type with a tick on the left tip. Medial **o** has its two strokes which are also ornamental, but in **to** in the first epigraph the left stroke is rounded.

Ligatures

Na has its loop prominent than the right hook in conjunct **nta** and **ndra**. **Pa** has its left arm bent in **pte** and **pra**. The sub-script **ya** is ornamental in **ryya**, **shya** and **sya**. **Śa** has very short mid-line in **śra** and **śrī**. **Sha** has also a bent in the left arm in conjunct **shpa** and **shya**. On the whole it can be said that in this set of inscriptions we find a prominent role of ornamentation which was a Deccani influence.

In Column No. 40 we have three inscriptions:

a) Udayagiri Cave Inscription of Chandragupta II, Gupta year 82.

b) Sanchi Stone Pillar Inscription of Chandragupta II, Gupta year 93.

c) Bilsad Stone Pillar Inscription of Kumaragupta I, Gupta year 96.

The letters in the Udayagiri cave inscription of Chandragupta II have solid square head-marks while those in the Sanchi inscription have solid triangular head-marks. But in the Bilsad stone inscription head-marks are formed by a solid rectangle with lower side concave.

Initial Vowels

The initial vowels are found in the first two inscriptions but not in the last one. The initial vowel **a** has an ornamental left curve below the vertical. Initial **ā** also has the lower tip of the vertical curved but here it is turned upward, and the horizontal of medial **ā** is attached in the lower part of the vertical. The left upper curve has a line head-mark. Initial **i** has triangle wise three dots with its apex at the top. The initial long **ī** has a line headed vertical with the lower tip turned and one dot each on either side. Initial **u** has its rounded base turned up.

Consonants

The lower tip of the vertical of **ka** is curved. **Ga** is flat topped with the right limb extended and its left vertical is curved inwards. **Cha** is of the beaked type with a rectangle head-mark. **Chha** has its solid right loop tilted downwards while the left loop is hollow. **Ja** is formed like Roman capital letter 'E'. **Ta** is flat topped. **Dha** has its back angular. **Na** is in its looped variety of southern style. **Ṭa** is angular type. **Ṭha** is oval with a mid-line inside. **Da** has its back angular. **Dha** is of the triangular type. **Na** is looped. **Pa** has notched left arm. **Pha** is angular is **spha** in the Bilsad stone inscription. **Bha** is of the angular variety. **Ma** is tilted. **Ya** has its left arm curved at the tip. The vertical of **ra** is curved at its lower end. **La** has its upper curve extended leftward. **Va** is of the tailed **kuṭila** variety in Udayagiri cave inscription. The other variety of **va** is triangular type. **Śa** is flat topped, equal armed and its mid-line is short. **Sha** is equal armed with a bent in its left arm, it can be classed as kutila variety. **Sa** is hooked and **ha** has its left arm bent with firm base.

Medial Signs

Medial sign for **ā** is a horizontal tick to the right but it is attached at the top in **kā**, **tā**, **dā**, **dhā**, **pā**, **bhā**, **mā**, **yā**, **rā**, **shā** and **hā**. But in **jā** it is an upturned tick in the middle bar and in **thā** its end tends downward. Medial **i** has a curl at the top in Bilsad stone inscription and it has round curve in Udayagiri and Sanchi inscriptions. Medial for long **ī** is of the circle type in which an additional line is given in the middle. **Ku** has its hook below the vertical, and vertical type of medial **u** is curved to the left in **nu** and **yu** while it is an upturned in **śu** and **su**. It is vertical type in **pu** and **mu**. Long **ū** medial has a curved attachment in the right of the vertical type of medial **ū** in **pū** but **rū** has its vertical curled and two hooks are attached below the letter. Medial **ṛi** has its round curve of the southern style. Medial **e** is found in both the varieties of horizontal and top slant. Medial **o** has its two top strokes while in the **bo**, both strokes are attached with left and right arms of **ba**. **Lo** has hooked **ā** in Bilsad stone inscription. **Au** has its three top stokes as usual.

Ligatures

Sub-script **la** is equal armed in **kle**. **Na** is angular in conjunct **nga** and **ṅgha**. Sub-script **chha** has its right loop bigger than the left one in **chchhi**. **Ṭa** is angular backed in **ṭṭa**. The base of **ba** is notched in **bra**. **Ma** in **mra** is formed in broad looped variety with its loop tilted to left in the Sanchi inscription.

Next in chronological order comes the Udayagiri cave inscription of the time of Kumaragupta I GE 106 (AD 425-26) which was published by Fleet (1888: No. 61, pp.

259-60) and listed in our Column No.5. Fleet holds that 'the characters belong to the northern class of alphabets.' (Ibid p. 258). But Dani has classed it among the inscriptions of Malwa and Rajasthan. (Dani, 1963: 156). He observes that "The letters, which show a distinctly triangular head-marks, are boldly engraved, and some of the medial vowels, such as ā, e, and o, show flourishes and produce an effect not dissimilar to the Mehrauli pillar inscription and the Bilsad inscription of Kumaragupta I. But the medial vowels are derived both from the north and the south. The northern features are marked in the top slants for ā, e, o, and ai, in the curved hooks for the medials u and ū, and in the medial ī which is turned to the right with an initial prominence."

Initial Vowels

The initial a is formed by two vertical limbs joined by a slanting bar. The right vertical has a curved tip which is a characteristic of the southern influence. The left limb has a crooked appendage open to the left. The ā medial is hook type added in the southern style to the lower part of the right vertical. Dani calls it the earliest type of its kind from which the later six century ā was derived. The initial vowel u is also in the southern fashion, the base of which is gently curved upwards.

Consonants

In this inscription all the consonants show the northern features, and that is why Fleet has called it of the northern class. Considering this feature we have listed this inscription among the epigraphs of the Kausambi style of north India. But after considering other features, described above, we decided to discuss its palaeographic features with the Malwa style. The verticals of ka and ra, the upper limb of la never show any tendency of curved tops. Similarly u medial sign which is a vertical in mu and u also do not tend to a curvature. Ka has triangular head-mark and a small cross bar. Ga has both legs equal and top flat. Cha is beaked type with triangular headmark. Ṭa also has a triangular head-mark. Na is open mouthed but flat based devoid of any loop. Ta also has a triangular head-mark with its right leg lengthened. Tha is an oval with a dot with in. The triangular headed da has a flat base. Na has a bent base, but without a loop. Pa has equal arms with triangular head-mark in the left arm. Ba is rectangular. Bha is angular. Ma has a tail. The left loop of tripartite ya is closed. Ra is a straight tapering line. La is hooked. Va is triangular shaped with a triangular head-mark. The flat topped śa has equal legs with full mid-line. Sha has its left arm tapering, base flat, and mid-line horizontal. Sa is angular as in the Karamdanda inscription.

Medial Signs

Medials of both styles are to be seen in this epigraph about which we have already mentioned earlier. The ā medial is found in the form of a top slant as well as in hooked form. The medial for e and o are also found in the top slant form. The i medial is found in form of left ward curve in ji, di, ni, bhi, mi, si, vi, śi, and si, but in top circle form in ti. The long ī medial in chi and dhi is of the northern class. The u medial in ku is turned leftward while in gu, bhu , and su it goes upward to the right. In pu, mu, gu and hu it is a straight downward stoke. The long ū in bhū and sū is a curve with opening to right while in ru an additional leftward tick is added beside the usual right horizontal tick. E in ke and se is seen with a flourish but in others the flourish is not so prominent. The medial ai in rai is of usual slanting type. The medial for o also is the slanting type in go and sho, but in ṭo, to, and lo the right stroke is horizontal.

Ligatures

There is nothing new in the formation of conjuncts. In most of the cases the second consonent is constricted, e.g. see ta and tha in kta, and ktha, da in dgi, etc. The subscript ya in jye nya and tya is bipartite, but in bhya subscript ya reaches the head line. Beside these the forms of conjunct ṅghi and sthi are also notable.

In Column No-41, we have Tumain inscription of Kumaragupta I and Ghatotkachgupta, Gupta year 116. This inscription is further developed of the style of the fourth century AD in this Malwa region. The letter forms are generally in the Malwa style.

Initial Vowels

Initial vowel a is formed by left curve on the tip of the vertical which is a characteristic of southern variety. Initial i is in southern rooftype, in which two dots are put below a curve.

Consonants

Ka has its lower tip of the vertical curved and its right middle bar is bent. Kha and ga are flat topped. Gha is flat bottomed and equal armed. Ṅa is angular in conjuncts ṅga and ṅgha. Ka and gha have triangular head- mark . Cha is rounded variety of the beaked type. Ja lookes like Room capital letter E . The lower end of ña is curved in conjunct jña. Da has its leg lengthened with a tick. Na is in looped variety of the south. Ta shows a new change. It has a vertical on the right and an angular hook to the left. Tha in thi is a circle with a short vertical line issunig from the bottom. Da has its back round. Dha is oblong while na is looped. Pa has its arms equal; and ba is square type. Bha is angular and its

right limb prolonoged. **Ma** is broad looped. **Ya** is tripartite with the left arm curled inwards. Vertical of **ra** has its ornamental curve at the lower tip. **La** and **ha** are hooked with a firm base. **Śa** is equal armed and flat topped. **Sa** is also of the hooked variety. **Va** is triangular.

Medial Signs

Medial sign for **ā** is seen in both the varieties of horizontal and top slant, and in **jā** an upturned vertical is attached with its middle arm. Medial **i** takes the form of full circle. But in **mi** two ends of half circle touched the two arm of a broad looped **ma**. For the medial **ī** an additional upright line is given in the medial of the circle at the base. Medial **u** is of an upturned variety in **gu**, **tu** and **dhu**, etc. While for long **ū** it has a slanting attachment to the left of the vertical of **u** medial in **pū** and **mū** ; while in **bhū** and **sū** the long **ū** medial is formed by an upturned stroke of **u** and a curved tick below the letter; but **ru** is formed by vertical type of medial **u** and a tick below it. **Ri** is round curved type of the southern style. Medial **e**, **o** and **au** are in eastern style.

Ligatures

The mode of forming ligatures is similar as in earlier described inscriptions. The sub-script **ya** reaches the head-mark in the conjucts **dya**, **ndye**, **rya** and **vyā** but in **hya** it goes only the half way. In other conjuncts the sub-scripts are not constricted, e.g., **kte**, **ksha**, **gra**, **ṅga**, **nha**, **jña**, **tka**, **ddha**, **ndra**, **pra**, **mba**, **lpih**, **ścha**, **śva**, **sta**, but in **mno** the shape of the sub-script diminishes.

Column No. 42 is derived from the Sanchi stone rail pillar inscription of Kumaragupta I, dated GE 131 (AD 450-51). This inscription also is written in the Malwa style showing influence of the southern alphabets. The verticals shows triangle head-mark.

Initial Vowels

Initial **ā** maintains the old form with a hook attached to the left limb and medial sign **a** is attached below the right vertical. Initial vowel **u** has its round base with a bent at the tip. Initial **e** is triangle type with flat bottom.

Consonants

The right middle bar of **ka** is extended. **Ga** is round topped. **Gha** has flat bottom. **Cha** is of the beaked type. The lower arm of **ja** has a bent in southern style. **Ta** is formed like a half square. **Ta** has a curve at the joint of limbs. **Da** is angular while **na** is looped. **Pa** is angular. **Bha** is angular with prolonged right limb. **Ma** is looped. **Ya** is tripartite and its left arm is curved inwards. **Ra** is straight vertical without a leftward tick. The right vertical

of la is curved inwards and extended. Va is of the triangular type. Śa and sha are equal armed, while sa is hooked and ha has its firm base.

Medial Signs

Medial vowel ā is of the horizontal type, or a curve on the right. In jā it is attached with its upper arm while in mā it extends downward. Medial i has a long loop or circle; left curved medial i is also found in bhi, ri, li and vi. Long ī medial has its upper curve more prominently turned to right. Medial u has leftward curve in bu and mu, downward in mu and upward in hu. Medial ṛi has its left rounded curve of the southern style in vṛi. Medial e has its top slant curved to the left. Medial o has two top slant strokes in to, bo and bho.

Ligatures

Kha is round topped in conjuct khya and the subscript ya approaches the top. Same is case in dhya, nya, vya, śya and sya. The right arm of sha in ksha is a bit extended. Ga appears to have a triangular headmark in gdi. Śa has a rounded top in śya.

The Column No. 43 represents the alphabets from the Mandasor (Dasapura) stone inscription of king Prabhakar mentioning Chandragupta II and Govindagupta. This inscription is neatly engraved in the Malwa style of writing in which the triangular headmark is seen. The letters are well formed and show the southern alphabets in an evolved form, which had become the characteristic of this area.

Initial Vowels

Initial vowel a has the lower hook of left limb turned outward and its left vertical is curved at the lower tip. This type of a is found in Central India and Rajasthan and also in copper-plate inscriptions of Bengal. Initial i has three dots arranged to form a triangle. The angle of initial u is rounded. Initial e has its triangle with flat bottom.

Consonants

Vertical of ka is ornamentaly curved at its lower tip. Kha is round topped. Ga has equal arms with a bent at the top. Cha is of the beaked type. Ja has a bent at its lower arm. Na is of the looped variety but its mouth is not open. Ta is angular. Tha has its oval with a mid-line. Da is squarish. Dha has its oblong form. Na is looped. Pa and pha have a bent in left arm and both arms are equal. Ba has a square shape. Bha is angular. Ma is with a broad loop. The left arm of ya is curved inwards. Ra is curved at its lower tip. The upper curve of la is extended. Va is of triangular type. Śa has a round top while sha is flat bottomed and equal armed. Sa is hoooked. Ha is also hooked with a firm base.

Medial signs

Most of the medial vowels are formed in southern style. Medial **ā** has its horizontal tick on the right. Medial **i** is of the circle type. Medial **ī** has a mid-line given in the circle. Medial **u** has booth upward and downward hook varieties. **ū** medial in **kū** and **bhū** have an upturned medial of **u** which is crossed by right curved attachment. **Rū** has two hooks attached below the letter. Medial **ri** is formed in the round curved type of south, which is curled on the tip. Medial **e**, **ai**, **o** and **au** are formed in the northern style.

Ligatures

Ṅa is formed as half square with **ṅkā** and **ṅga**. Sub-script **chha** is looped in **chchhi** while **ña** is looped in **ña**. **Ñcha** shows the full type of **ña**. The sub-script **sha** shows a buldge in the left. **Ka**, **ga** and **śa** are constricted as sub-script. **Ma** in **dma** shows an angular appendage. Sub-script **ya** reaches the head-mark. Other conjuncts are in usual form.

Column No. 44 is derived from Mandasor inscription mentioning Kumaragupta I and Bandhuvarma. This inscription also followed the Malwa style. Dani observes it as the last survival of the southern characteristics in this region. But, however, the northern style of head-marks is perceptible. The medial vowels are in southern style except the top slants for medial **ai** and **au**.

Initial Vowels

Initial **a** has a hook in its left lower arm while the right vertical is ornamentally curved at the lower tip. No other initial vowel is seen here.

Consonants

Ka is curved at its lower tip in southern style. **Kha** and **ga** have round top. **Gha** is of the southern style with its left arm bent. **Ṅa** is formed as a half square in conjunct **ṅga**. **Cha** is of the beaked type. The long left vertical of **ja** is concave. **Ta** and **dha** are angular. **Tha** is a oval with a mid-line inside, but it has an additional small circle. **Da** is squarish. **Dha** is of the Deccani type and **na** is looped. **Pa** has its arms equal. **Ba** is square with a notch in the left arm. **Bha** is angular. **Ma** has its base triangular and looped. The left arm of **ya** is curved inwards. **Ra** has curved vertical. **La** is formed by its upper curve extended downwards. **Va** is triangular. **Śa** is flat topped while **sha** is equal armed with its left arm bent. **Sa** is hooked with an acute right angle. **Ha** is equal armed with its left arm bent.

Medial Signs

Medial vowel **ā** has its horizontal bar with a downward tick on the right. Medial **i**

maintains its circle, while in the long ī medial, it has an additional mid-line in the middle of the circle of i. Medial u maintains its both upturned hook and curved vertical varieties. Medial for long ū in nū extends the right tick of na and turns to left at the tip and adds another downward tick to the left. Same is the case with bū and mū. But in bhū, it has an upturned hook, crossed by a curved right attachment. In pū the left tick turns to right. Medial ṛi is formed in southern style with its round curve, which is curled at its tip. Medial e, o and au are influenced by northern style but in lo the medial o is cursive.

Ligatures

The sub-script la in kla has a flat base while the sub-script ya in kya reaches only half way. Sub-script dha in gdha becomes triangular. Ṭa in ṭṭa is super imposed over the sub-script. Ḍa in ṇḍa is constricted. The sub-script tha in ttha has a shorter middle bar; and sub-script pa shows a notch in its left arm in tpa. Dha is squarish in the conjunct dhba, while ba also is squarish. Sub-script da becomes angular in conjuct bda. In sthai, the sub-script tha has a horizontal curved middle bar. Sub-script ma, na, dha are constricted.

Column No. 45 is taken from Eran stone pillar inscription of the time of Budhagupta, Gupta year 165. In this inscription the southern features have been abondoned and north Indian characteristics are adopted. Northern style is followed in the medial vowels. The medial ṛi also is of northern type which curves to right.

Initial Vowels

The left lower hook of initial a is turn outwards and in initial ā the hook of medial sign is attached below the letter.

Consonants

Ka is formed with curved middle bar and ga has its equal arms with flat top. Cha is of the beaked type. Ja is in the form of the Roman capital letter 'E'. Ṅa lookes like half square in conjunct ṅka, and chha is double looped in chchri. Ña is in full form in ñcha. Ṇa is open mouthed. Ta has its right limb prolonged. Tha maintains the southern type. Ḍa is double curved. The lower end of dha is narrowed or pointed. Na is tailed and ya is tripartite with a loop at the left arm. Ra has a straight vertical. The hook of la is curled downwards. Va is triangular. Śa has a foot-mark and equal arms. Sa is hooked with an acute angle. Ha is hooked with its firm base.

Here it should be noted that some letters like ma, na, va etc. are nearer to the alphabets on the Gupta gold coins.

Medial Signs

Medial ā has both types of horizontal and top slant. The left curve of medial i is extended to the bottom of letters. Medial u has its left hook curved or vertical type. The medial ū in pū has vertical type of notched medial u and to it a vertical is attached to the left, below the letter. But bhū has its extremely curved hook of medial u and a tick is attached to the right, below the letter. Medial ri has its right curved hook of northern style. Medial e is of horizontal type. Medial ai, o and au follow the northern style.

Ligatures

Ligatures are influenced by the southern style.

Column No. 46 is derived from the Shankarpur copper-plate inscription of the time of Budhagupta and Harivarma dated in the Gupta year 168. It represents the copper plate style of the Mathura region. The line head-mark is more prominent in this inscription.

Initial Vowels

Initial a is angular with a line head-mark at its left vertical. Initial vowel u has its downward curve extending further and has a line head-mark.

Consonants

Ka has its middle bar curved with a line head-mark. Kha has rounded top with a circle and head-mark. Ga is round topped with foot-mark at the left limb. Gha takes a new shape here; both left and right curves of gha are joined by a line at the top. Cha has its beaked type, and lower arm of ja is slanting downwards. Ña has its full form in ñcha. Ṭa is formed by semi-circle with its top inclined to the right. Ṭha is of circular type is shṭha. Na is open mouthed. Ta also has a new shape where left vertical hangs from the head line and the right one is attached a bit below the top. Da is of the angular variety. Dha is oblong. Na is looped. Pa and pha are equal armed and flat bottomed with line head-mark. Bha is angular. Ma is tailed. Ya has its left arm curved inwards and while the right arm has only a tick in place of the vertical. Ra is a straight line. La is hooked. Va is traingular. Śa is round topped with a foot-mark at the left limb and both are equal. Sha is formed like sa with a broad loop with acute right bottom. Sa is hooked and equal armed with an acute angle on the right. Ha has its arms equal and its right tick has downward curve.

Medial signs

Medials are formed in the northern style. Medial vowel ā has its top slant of northern style while i has its left curve. Long ī medial is of circular type within the left curve of medial

i. Medial u is formed in three ways; upward or downward tick and vertical type. The long ū medial in pū has its vertical type of medial u with a long vertical attachment to the left, while bhū has its upturned hook with a tick on the right. Medial ri has its northern hooked type. Medial e, o and au are also formed in northern style.

Ligatures

All ligatures are formed in northern style as discussed above.

Column No. 47 is taken from the Eran stone pillar inscription of the time of Bhanugupta and Goparaja dated in the Gupta year 191.

Initial Vowels

Initial vowels are not used in this inscription.

Consonants

Ka and ga are formed in northern Indian style, but ga shows foot-mark at its left limb. Kha has rounded top in the conjunct khyā. Ṅa has its half square in conjunct ṅśa. Cha is of the beaked variety but is angular. The lower arm of ja is slanting. Ña is of the open mouthed type and its right curve is extended downwards. Ta has its prolonged right limb and a triangular head-mark. Tha is oval with a mid-line inside. Da is angular and firm based. Dha has its lower end narrowed. Na is looped. Pa is of equal arms. Ba is of the square type. Bha is angular and ma is tailed. Ya has its left arm curved inwards and right half forms an acute angle instead of a bottom in ya. Ra has its right vertical with line head-mark. La is angular and firm based. Va shows its triangular variety with line head-mark. Śa has flat top and prolonged right limb. Sha is of equal arms and its middle line is slantiang downward in shva. Sa is hooked with equal arms and acute angle at the right. Ha is hooked.

Medial Sings

Medial ā is of the horizontal type with a right tick. Left curve of medial i is extended downwards reaching at various points. Medial u maintains its left curve in gu but in other letters its vertical turns to left at the lower tip. Medial ai has its right cvurve of the northern style. Medial e, o and au also are seen in the northern style.

Ligatures

Sub-script tha is horizontal in rtha with a vertical middle bar. Sub-script ya in tyu makes two angles at the left curve and the right vertical also goes up with a right angle,

but in **sva** it does not go up. **Anusvāra** in **ddham** is a small circle but in **rggam** it is a dot.

E. THE REGION OF GUJARAT

Column No. 48 enlists the letter forms from the Junagadh rock inscription of Skandagupta, dated in the Gupta year 136, 137 and 138. Dani (1963:165) observes that 'this inscription does not copy the Gupta forms of other regions, but is completely in the local style. It establishes a link between the writing of the Western Kshatrapas and that which later developed in this region and further provides a source from which the Malwa style of the fifth century was derived'. It is noteworthy that this region was earlier ruled over by the Western Kshatrapas and occasionally the Satavahanas also were at war with them. Thus on account of the Satavahanas the influences from the south were felt in the writing of this area. But the main thrust was of the north to which the Western Kshatrapas exhorted. The Western Kshatrapa influence is clearly seen in the writings of the Traikutakas, the Gurjaras and the Maitrakas. In the inscriptions of these dyanasties the tendency to abandon the southern influence and develope a style of the region is clearly observable. This was a simple style and the inclination to avoide the ornamental trends from both, the north and the south, was dominant. In this way this area of Gujarat developed a simple style of its own and this inscription of Skandagupta represents the local style of this area in the middle of the fifth century A D.

In this inscription we find some common features which are to be seen in the subsequent wirtings also. Firstly, there are only line head-marks in the letters. Secondly, no foot-mark is discernible in them. Thirdly, some entirely new forms of medial signs are found here. These will be indicated at proper places.

Initial Vowels

Initial **a** has a hook at the bottom of the left limb and its right vertical is curved in the southern fashion while for the initial **ā**, a slanting curve is added to the right vertical of the initial **a**. In the initial **i**, the three dots are arranged trianglewise, in which two dots are on the left and one on the right. Initial **e** is triangular with a top stem on the right.

Consonants

Ka has a slanting middle bar at right and its vertical is curved at the bottom. **Kha** has a quadrangular loop. **Ga** has its arms equal and the top rounded. **Cha** is also quadrangular and Dani (1963:166) calls it the foot type of **cha**. **Ja** has its slanting lower arm. **Ṭa** is flat topped. **Ḍa** is round backed. **Ṇa** is of the looped type. **Ta** has its equal arms. **Tha** is oval or quadrangular with a short line within. **Da** is round backed. **Dha** is formed in the shape of reversed Roman letter 'D'. **Na** is of the looped variety. **Pa** is equal armed and **ba** is of

square type. **Bha** is angular and **ma** is broad looped. **Ya** is in the tripartite form without loop at the left arm. **Ra** has its lower end curved. **La** has its right vertical curved towards the left. **Va** is of the triangular type. **Śa** is equal armed and rounded top. **Sa** is of the hooked variety.

Medial Signs

In this inscription medials are entirely different from those found in the north. Medial **a** has its horizontal type and its is attached with middle of the letters in **khā**, **jā**, **thā** and **śā**. Medial **i** is of the circle type, and for the long **ī** medial it has an additional tick within it. Medial **u** is formed with a curved tip in the vertical type of medial **u** and it has an additional horizontal stroke from the medial **ū**. Medial **ṛi** has its leftward round curve of the southern type, but in **nṛi** its tip turns to right. Medial **e** is of the horizontal type. Medial **ai** has its two top slants. Medial **o** has two and **au** has three top strokes. But Dani observes that 'the medial **o** in **lo** is cursively drawn by turning the top of the right arm into a tailed loop'

Ligatures

There is not much variation in the formation of conjuncts in this inscription. **Ya** maintains its tripartite form in conjuncts **gyām**, **chyām**, **jya**, etc. and it is hooked only in **vya**.

REFERENCES

1. Dani, A.H., 1963, ***Indian Palaeography***, Oxford University Press, London.
2. Fleet, J.F., 1963, ***Corpus Inscriptionum Indicarum***, Vol. III, Varanasi (reprint 1963).

* * *

CHAPTER VI

SCRIPT ON COINS

The Gupta coinage, especially the gold series, is unique as regards the legend on them. It is for the first time in the history of ancient Indian numismatics that we find metrical coin legends. Altekar (1957 : 17) perceives in it. "The literary renaissance, which characterised the Gupta age in its coinage". He further observes that "For the first time in the history of Indian numismastics, coins legends become mostly metrical, their poetical merit is also very high". The Guptas ruled for about two centuries and almost every king isssued coins, but it is strange that there appears little signs of modification in the palaeography of their coin legends. It seem that the progress of modification in the alphabets during this period became stagnant. But our study shows that the situation is not so hopeless.

The main reason behind such an assumption is the publication of John Allan (1914) who standardised the script of the legends on the Gupta coinage. He was justified in his approach, and he was faithful in copying the legends in his catalogue portion. Altekar also did the same in a different manner. He standardised the legends (not script) which were prepared by C. Sivaramamurty in five plates and the next two plates were copied from the Catalogue of Allan (Altekar 1957 : 302). Although these legends give the actual letter forms from the coins but it does not show the forms described by Altekar in his discussion on palaeography (Ibid : 301-305) and often the references given for the coin legends does not correspond to the plates of coins. We also were bound by limitations because the reproductions of coins on plates are often not so satisfactory. But we have tried to be as faithful as possible.

But before we discuss the palaeographic features of the coin legends on the Gupta coinage we must discuss about the conservatism on coins to which Upasak (1961 : 216) has rightly pointed out. He observes that, "In the realm of numismatics, conservatims was a very strong force in ancient India. On any new issue of coins, it was to some extent

essential to maintain the similarity with the issues of the predecessors since it was otherwise difficult to get proper circulation and recognition among the people". Writing about conservatism A.K. Narain (1956 :161) observes that "There is much conservatism in regard to the types and the fabric of coins; their main characteristics have often remained unchanged, not only by changes of dynasty, but even by the transfer of power from one people to another. This conservatism is largely due to the habits of the people, who grow used to certain coin-types and refuse to accept others".But this conservatism was not so hard during the first few centuries of the Christian era when, as we have seen in the earlier chapter, the Indian people showed a welcome adaptability in accepting the Indo-Greek mode of using writing on coins. We have seen that on this account the Brāhmī letters got new shape. The Imperial Guptas were conservative only in accepting the Kushana gold coin-types in metal, fabric and weight standard but they were much more innovative as regards the script, language, and coin devices. Very soon they introduced several new types. Almost every king, atleast upto Skandagupta, was innovative in this regard. Therefore, in the filed of palaeographic features, the Guptas were not conservative .

Altekar (1957 : 301) rightly observes that "In the Gupta coin legends the letters usually display the same norms which are seen in the contemporary lithic records". Our research also points in the same direction. It is not possible to separate the characters of the coin legends with the other inscriptions. Upasak (1961 : 217) observes that "When the copper-plate inscriptions are compared with the legends on the coins, they show similar technique; and thus, palaeographically they come to the same group". He further says that "The reason is obvious. A similar technique is evinced when engraving is made on metal piece, whether it is executed on a copper-plate or on the iron pillar or on the die of a coin. Of course die-cutting required greater care and better craftsmanship than other kinds of engraving on the metal".

But we beg to differ with Upasak. The technique of die-cutting is quite different from that of engraving on a metal sheet of copper or on the surface of an iron pillar. On the die of a coin the letters are engraved in their reversed forms. Further, the space on a die is extremely limited and the legend has to be accommodated in the available space. Most probably this was the work of the artist rather than the work of a writer. Therefore, it will not be proper to see a palaeographic evolution in the coin legends; because the artist always had a specimen of writing before him for "designing" the coin legend. Perhaps this is the reason why we do not see much perceptible change or evolution in the characters of the writings on Gupta coins. But of course there is a change in characters on silver coins of

Chandragupta II, Kumaragupta I and Skandagupta. This is because the silver coins of the Guptas were imitation of the silver coins of the Śaka-Kshatrapas of Western India. The space on these coins was far more limited and it is on this account the characters get compressed on coin flans. Altekar (1957 : 301) rightly observes that "**ga** often loses its left limb and **ka** its horizontal line; **ta** and **na** often dwindle into a vertical line". Not only this, the vertical on these silver coins become unusually long and bent at their lower tip, as we have seen in the Malwa style of the Gupta inscriptions. **Ma** is some times reduced into three lines. (We have drawn letters in our plates only from the Gupta gold coins, and silver coins are not represented here.) Coming back to the gold coins, the legends are often truncated and incomplete. This is because the coin blanks were often smaller than the die flan, and there is every reason to believe that die flans were prepared in full. Wherever we get a full letter we find that they have a head-mark and also a foot-mark, as per requirement.

Here we must say something about the regional styles on coins. Although Altekar and Upasak have talked about the western or eastern type of this or that letter, it is not possible to assign any coin to a western or eastern mint of the Guptas. Altekar observes (1957:302) that 'The so called eastern forms of **ma** or **ha** appear on some coins of the Battle-axe and the Archer types, and on the variety A of the Lyrist type of Samudragupta, on some coins of Kacha and on all coins of class I of the Chhatra type of Chandragupta II. It is interesting to note that on several coins, the so-called eastern and western forms of **ma** appear together, one on the obverse and the other on reverse'. He further observes that 'This tend to show that both the forms were current in the same locality and had no special territorial significance. It is necessary to add that the eastern forms of **ma** and **ha** become rare in the reign of Chandragupta II and disappear in later reigns altogether'.

This question of the so-called eastern and western varieties was discussed by Upasak (1961:18) also. We prefer to quote him in full to understand his view point.

> "The iron pillar inscription of Chandra stands at Mehrauli near Delhi; but the shape of the letter **sa** belongs to the eastern region. We cannot adduce any definite reasons for its appearance in an inscription situated in the Western part of the country. Was it a fact that since it was an iron pillar of very hard substance, a highly skilled artisan was called for from the head-quarters in the east, who being more conversant with the eastern style of letters used this form of **Sa**? This may be a mere guess. How are we to reconcile the occurrence of both the shapes even in one and the same inscription? In the Deoriya Stone Inscription (**CII**, Vol. III, No. 68, Plate XL-B, pp. 271ff.), in the word **Sarvasatvānām**, the first **Sa** is engraved in western

style, while the second **Sa** belongs to the eastern group. What reason can possibly be adduced for this coincidence? It is a problem. Again the Allahabad Pillar Inscription of Samudragupta (Sircar; **Select Inscriptions**, Vol. I, pp. 254ff) invariably possesses the eastern form of **Sa** in all places of its occurrence except in a conjunct in *Kausthalapuraka*, (line 10) in which the western shape of **Sa** is noticed. The numismatic materials are not free from such exceptional coincidences. We find, for example, both the forms of **Ma** side by side even on one coin. (See: **BH**-III, 14; **IMC**-XV, 4). Sometimes the eastern forms of **Sa** appears with the western variety of **Ma** (See: **BH**-I, 14, III, 9, III, 14 etc.). On the basis of the shapes of the letters, it is indeed difficult to locate the regional mints from which the coins were issued. Seemingly it appears that the die-cutters were conversant with both the forms of letters and so they engraved arbitrarily".

If will not be reasonable to be so hard on the styles of some letters. We have already pointed out earlier that the Karamdanda inscription of the time of Kumaragupta I also contains some letters of western style while it geographically is located in the eastern Uttar Pradesh. We will be unfair if we really believe that an easterner should not know a letter of the western variety, or vice-versa. We feel that although one variety was in use in a locality and in due course of time these letters became normal in that area thus giving way to eastern or western varieties of letters. But since these varieties had developed out of the same shapes there must had been a time when both the varieties were prevalent in both the areas. The period of the Guptas should be taken to belong to such a transition. Therefore, it will not be reasonable to take a rigid view on the point of eastern and western varieties of some letter forms and compartmentalise them. We should not regard this a problem and waste our energy in finding out reasons for it. With this view in our mind we can say that at present we cannot be sure about the location of the Gupta mints in this or that locality simply on the basis of paleographic peculiarity of this or that letter. Further more we can presume that the Gupta emperors might have been in the habit of summoning their die-cutters and mint-masters from their original home land. But at the same time they followed the local traditions of the types and fabric. The silver coinage of the Guptas is a brilliant example of this practice.

The other thing which can be noticed here is that there are not many letters and conjuncts used in coin legends. As the legends are smaller and limited in number all the alphabets of the **varṇamālā** are not found on coins. The medial signs and conjuncts also are limited. As we have already pointed out the letters on coins are very often truncated

and sometimes compressed and stunted. In the reproductions their shapes are not very clear. With these limitations we have drawn our palaeographic charts. We have not copied the restorations of Allan and Altekar of the coin legends but have sorted out the letters directly from the coin illustrations.

Our Tables contain the legends on gold coins only.

Now we take up the palaeographic features of the coin legends of the Gupta kings.

Samudragupta

Among the coin-types of Samudragupta we have included the Chandragupta-Kumaradevi coin-type also because we feel that Samudragupta was the king who can be credited to have established the Imperial Gupta dynasty. We find much weight in the opinion of Allan (1914:XVIII and LX IVff.) that the Chandragupta-Kumaradevi coin-type was a commemorative issue of Samudragupta. Recently Verma (1991:p.114 ff.) also made a fresh approach to this problem and came to the similar conclusion. In the same way we have inlucded the Kacha coins also among those of Samudragupta. Allan (1914:p. XXXIII ff.) suggests that 'Kacha was the original name' of Samudragupta. This opinion is expressed earlier by Fleet (1888:27, fn. 4) also who holds that 'Kacha must... be a personal and less formal name of Samudragupta'. Verma (1991:128ff.) also has come to similar conclusions. C.S. Upasak also observes that 'Palaeography of the coins of Kacha and Samudragupta further strengthens the presumption that they stood in close relation'. But here we have accepted the identity of the two.

Our Chart No. LIIa and LIIb contains letters found on the gold coins of Samudragupta. A look at the Chart will show that many letters of the **varṇamālā** are not found on coins. Ligatures also are very few.

Among the initial vowels only **a** is found and its lower left limb turns to right. The right vertical is straight. **Ka** has a line head-mark which some times looks like a triangle or notch, its vertical is straight, and cross-bar is bent. In **ku** the **u** medial takes a turn to left, while in **kri** the **ri** medial turns to right. In ligature **kra** the sub-script **ra** is a slanting stroke tending towards the left, and attached to the lower tip of the vertical of **ka**. **Ga** in **gu** has a foot-mark in the left leg and the **u** medial takes an upward turn. **Gha** is found in the conjunct **ghra** where the middle arm is shorter than the other two; both these arms have head-mark. The sub-script **ra** is in the same fashion as we find in the conjunct **kra**. **Cha** is beaked type but several varieties can be identified on the basis of the verticals joining at one or two points to the headmark. The sub-script **chha** in **chchhe** has its two loops

looking like a bisected circle. **Ja** continues the form of Roman capital letter **'E'**. **A**, **e**, and **o** medials are slanting strokes while **i** medial is a curve over the top horizontal limb of the letter. The lower appendage of **ta** some times hangs with a vertical and in some cases it touches the head-mark. Head-line some times looks like a notch or triangle. Sub-script **ya** in **tya** reaches half way to the head-mark; and the sub-script **ta** in **ttā** is an attachment to the lower portion of the right limb of main **ta**. **Tha** is a circle with horizontal line within. **Da** is angular and flat based. In **dra** the lower tip of **da** extends down and takes turn to left to form the sub-script **ra**. **Dha** looks like a reversed Roman capital letter **'D'**. The **i** medial appears to be an upward extension of the right half of the letter. **Na** has a loop in its lower left portion and head-mark. **Nta** and **ndra** are the conjuncts formed in the usual manner. Both the limbs of **pa** are equalised, and in some cases the head-mark appears to have been given on both of them . **Ri** medial is in its usual north Indian style, opening to right. **Pta** and **pra** are the conjuncts of this letter. **Bha** is angular with a left word attachment in the right vertical. **Ma** is found in both the eastern and western styles. In most of the cases the triangular appendage of **ma** is found, but tailed **ma** is also used in many cases. Altekar (1957:302) rightly points out that 'It is interesting to note that on several coins, the so-called eastern and western forms of **ma** appear together, one on the obverse and the other on the reverse'. He further observes that 'This would tend to show that both the forms were current in the same locality and had no special territorial significance'. **Ya** is tripartite with the head-mark in the middle vertical; the left limb simply takes a turn but doesnot form a loop. **Ra** is a strait vertical with usual line head-mark. In **ru** a simple left turn of the lower tip serves the purpose of the **u** medial. **Rja**, **rva** and **rma** are the conjuncts with this letter. **La** has a firm base. **Va** is in the form of a triangle in various varieties. **Śa** has a flat top or some times rounded one. The foot-mark in the left leg is only occasionally found. **Śrī** and **śva** are the conjuncts with this letter, and they are formed in usual way. **Sa** has an acute angle in the right limb and an angular appendage at the left. This is western form of **sa**. Although **ha** appears in the legend on Asvamedha type coins of Samudragupta we could not get a trace of the letter in illustrations given in Altekar (1957). On his plate No. XX, Altekar gives the legend **mahārājā dhirāja Śrī Samudragupta** and on the opposite page he gives the reference of p. 57 for it; but there is nothing like it on that page.

On the whole it can be remarked that in the gold coins of Samudragupta the north Indian style is followed and it seems that the distinction between the socalled eatern and western varieties was not so prominent a point during his time.

Chandragupta II

While discussing about the socalled eastern and western varieties of **ma** Altekar (1957:302) observes that 'It is necessary to add that the eastern forms of **ma** and **ha** become rare in the reign of Chandragupta II and disappear in later reigns altogether'. But the illustrations on his plates XXII and XXIV show that for atleast **ma** such a claim will be wrong; and **ha** of course does not occur at all.

Among the alphabets found on the gold coins of Chandragupta II the only initial vowel which is found, as also was the case with Samudragupta, was **a** and it is not much different from that of his predecessor. The letter **ka** occurs only as conjuncts of **kra** and **kshe**, and here also they do not differ from that of Samudragupta. **Ga** has a rounded top and a foot-mark in the left leg. The **u** medial is attached to its right leg which turns upward. **Na** occurs only in conjunct **ṅha** and here it is in the form of a half square, opening to right. The sub-script **ha** appears to be of the eastern type. **Cha** is beaked type and its two verticals touch the head-line at two points. But other forms are also seen (not illustrated). **Ja** maintains its old shape. **Na** is open mouthed and looped. **Ta** shows a triangular head-mark with often a prolonged right limb. **Tha** is a circle with a line inside. **Da** has a rounded back and occasionally a flat base. **Na** is looped with a line head-mark, in the conjunct **ndra**. **Pa** is with equal arms with a head-mark in the left limb. **Pta** and **pra** are the conjuncts with this letter. **Ma** retains its triangular appendage. **Ra** is a vertical with line head-mark. In **ru** the **u** medial takes the form of two stroke at the right, the lower one turned to left. **Va** is triangular. The **i** medial reaches below the head-line. **Śa** in **śrī** has a curved top, a foot-mark in the left leg and full midline. **Sa** is of the so-called western variety. As regards **ha** both the varieties are found.

Kumaragupta I

The coinage of Kumaragupta I are more extensive than any other monarch of the Gupta dynasty; and so the legends also are numerous. Therefore, the number of alphabets is also larger than any one.

The initial **a** usually follows the shape used by the predecessors, but in the **Apratigha** coins the right vertical of **a** takes a leftward turn, which we have seen in the Malwa style. **Ka** has a line head-mark and bent cross-bar. In **ku** the **u** medial takes a trun to left. **Ksha** and **kra** are the conjuncts which follow the old practice. **Kha** has a triangular right limb but its left limb looses its prominence. The legs of **ga** become equal but its round top sometimes become flat. The three arms of **gha** are also equalised but its two bases are some

times rounded and in some cases are flat. **Ṅa** is similar to that found on the coins of Chandragupta II, in conjunct **ṅha**. **Cha** maintains its beack. **Ja** also is in its old form. **Ḍa** is found in the conjunct **ḍgaḥ** and here it is stepped. The subscript **ga** has a foot-mark in its left leg. **Ṭa** has a rounded appendage which sometimes hangs below a triangular head-mark. Some times the appendage is angular also. **Ṭha** is circular with an **i** medial which is placed at the top. **Ḍa** has a rounded back and in some cases it is angular also. **Ḍha** is a reversed Roman letter '**D**'. **Ṇa** is looped in all cases. The **ṛi** medial takes a leftward turn, which is a southern characteristic. **Ṇḍra** and **ṇva** are the conjuncts with this letter. **Pa** has its arms equal, and the **ṛi** medial here also takes a leftward turn. **Ba** is squarish. **Ma** maintains its triangular appendage.

But in Allan's (1914:84 & ff.) illustrations both types of **ma** are listed. **Ya** is tripartite. **Ra** is straight line. The left hook of **la** is shorter and its base is flat or rounded. **Va** is triangular. The top of **śa** is rounded and its left leg is shorter and has a foot-mark. **Sa** is of the western variety. **Ha** has its hook to right and base rounded or flat.

Skandagupta

Skandagupta succeeded his father Kumaragupta I and he maintained the glory of the Guptas till his death. He issued the usual weight gold coins as well as heavy weight gold coins. As will be clear from our Charts (Pl. No. LVa and LVb) the letters used on his coins are less in number as compared to his father.

No initial vowel is found in his coin legends. **Ka** is similar in form to those of his predecessors. **Ga** has a round top and maintains a foot-mark in the left leg. **Ja** also retains its old shape. **Ta** has a rounded appendage and line head-mark. **Da** has a bulged back, and **dha** is in reversed Roman capital '**D**' shape. **Na** is looped type in conjuncts **nda** and **nvi**. **Pa** is equal armed with head-mark in the left. **Bha** has its left leg shorter than the right one. **Ma** is usually tailed type and some times it is just an angle over a horizontal line. **Ya** is tripartite and often compressed. This type of **ya** is found in earlier epigraphs. **Ra** is a straight vertical with line head-mark. **Va** is triangular. **Śa** in **śrī** is as usual. **Sa** retains its western shape. **Ha** has its hook to right with a firm base.

Successors of Skandagupta

The Gupta dynasty lingered on till about the middle of the next century but there seems some confusion about the succession of the kings. Skandagupta, perhaps, had no issues, and therefore the sons of Purugupta appear to have succeeded him. The period of their reign and order of succession is not very clear. However, their gold coins and some

epigraphs give a blurred picture. A description of the letters found on their gold coins is as follows.

No initial vowels are found. **Ka** is as usual with a bent cross-bar. **Ga** has a flat top with foot-mark in the left leg. **Gha** has its arms equal and bottoms rounded. **Cha** is almost beaked. **Ja** is as usual. **Ṭa** in **ṭo** is semi-circular with its opening to right. **Ta** also retains its older shapes. **Da** is double curved type which is certainly a sign of advancement in script. **Dha** again is in its older forms. **Na** is looped type. **Pa** is equal armed with rounded or flat based. **Ba** is squarish. **Bha** has a new shape with both the limbs falling from the head-line. But this unusual shape may be on account of its engraving in the coin die. **Ma** has triangular appendage. **Ya** retains its tripartite form, but some times the left arm is shortened. **Ra** is straight vertical line with head-mark. The **u** medial, attached to its lower tip turns toward left. The legs of **śa** appear equalised with a foot-mark in the left one. **La** has its hook to left with a flat base. **Va** is triangular, but in **vai** and **vam** the two upper lines meet at two different points with the head-mark. **Śa** and **śrī** are as in earlier coins. **Sha** in **shṇu** also keeps its arms equal with head-mark in the left one and a full mid-line the sub-script **ṇa** is open mouthed and flat based. **Sa** is similar to its precursors. **Ha** has the hook to right with its base firm.

The silver coins of the Guptas have a different style of writing as we have pointed out earlier. The letters are more compressed on coin flans as compared to the gold coins. We fully agree with Altekar (1957:301) who holds that on silver coins **ga** often loses its left limb and **ka** its horizontal line; **ta** and **na** often dwindle in to a vertical line. As pointed out by many scholars the silver coins were issued in imitation of the Western Kshatrapas and thus they exhibit southern and western influence and style. We have not drawn letters from the silver coinage of the Guptas in our Charts.

In conclusion we can point out that the script on the gold coins by and large exhibits the North Indian style to which Dani has given the name of Kausambi style also. Although some letters show the so-called eastern or western forms but it can not be taken as an argument to allot regionalism or regional affiliation of the coins or coin mints. The **Apratigha** type coin of Kumaragupta I shows a Malwa style **a** but on this basis also we can not say definitely that this type was minted in that region. Perhaps the Guptas had their mints located in the Middle Ganga Valley region or their mint-masters and die engravers were selected from this region.

REFERENCES

1. Allan, John, 1914, ***A Catalogue of Indian Coins in the British Museum : Coins of the Gupta Dynasties and of Sasanka, king of Gauda,*** (reprint 1991).

2. Altekar, A.S., 1957, ***The Coinage of the Gupta Empire,*** Varanasi.

3. Fleet, J.F., 1888, Inscriptions of the Early Gupta kings and their successors, ***CII*** Vol. III (reprint 1963, Varanasi)

4. Narain, A.K., 1956, Numismatic Evidence and Historical Writings, ***JNSI,*** Vol. XVIII, pt. II, Varanasi, pp. 157-62.

5. Upasak, C.S., 1961, Some Salient Features of Brahmi on Gupta Coins, ***JNSI,*** Vol. XXIII, Varanasi, pp. 216-40.

6. Verma, T.P., 1991, Samudragupta : Epigraphic and Numismatic Sources, ***JNSI,*** Vol. LIII, Varanasi, pp. 114-138.

****

CHAPTER V11

NUMERALS

In inscriptions we find that the numerals are denoted by symbols of units, tens, hundreds and thousands. Besides these symbol-numerals decimal numerals are also used but these appear quite late. The so far earliest epigraphic instance of the use of decimal numeral is the Gurjara inscription from Sankheda dated in the Chedi year 346 (AD 595) where the figures are written in decimal style i.e. 3 in place of hundered, four in place of ten and six in place of unit (Dhruva 1894=19-20). But from this it should not be presumed, as some earlier scholars have done, that the use of zero in the decimal system of numbering was not known before this. Subandhu in his **Vāsavadattā** mention that **śūnya** was written like a **vindū** (**'śūnyavindavaḥ iva vilikhitā**). Subandhu is said to belong to the 3-4th century AD. Hoernle estimates the antiquity of the arithmetical tratise, contained in the Bakstali MS.and holds that its invention dates from the beginning of the Christian era or even earlier (See Buhler, Eng.Tr. by Fleet in **IA**, 1904, Apendix, 01-6,p. 102). In that work the decimal notarion is used throughout. Thus, the decimal system of numeration was known and used in India since before the birth of Christ.

But so far the evidence of the epigraphs goes the first use of the decimal notation is found in the close of the sixth century A.D. The most favoured system of numbering was that which, according Buhler (1904=98) was known among the Jains as **akśarapalli**; the other system being known as **aṅkapalli.** On this account Buhler supports his theory of letter- numerals and observes that "The fact that these symbols really are letters is also acknowledged by the name **akṣarapalli**, which the Jainas occasionally give to this system, in order to distinguish it from the decimal notation, the **aṅkapalli.**"

Without going into any detail we wish to say that we do not agree with Buhler that these are letter numerals. Although the shape of some of the numerals give an impression of some alphabets or conjucts but they do not exactly correspond with them in shape. The

exponants themselves do not agree as to which letter a particular numerical form resembles. They give more than one letters for a particular number. For example 4 is said to resemble with **pha**, **pna**, **lka**, **tka** and **shka**; 5 with **tri**, **ta**, **tā**, **pu**, **hu**, **ru**, **na**, **nā**, **hri**, **hra**, and **ha**; 6 with **phra**, **phrā**, **pha**, **pha**, **ja**, and **ha**; 7 with **gra**, **gu** or **ga**, and so on. Srivastava (1986=46-47) observes that there appears no definite principle on which these numerals were given the shape of the letters and attempt has been made to correspond with more than one letter, which is unreasonable. Further he points out that the shapes of 1,2,3,50,80,and 90 do not resemble with any letter.

After describing the numerals and their signs Buhler (1904=101) observes that "the above details show:- (1) That the inscriptions of all periods, even the Asoka edicts in case of 100, differ from the MSS.by offering, side by side with the distinct letters, numerous cursive or intentionally modified forms, and that, in case of 50 and 80, just the older inscriptions show no real **akṣaras**. (2) That, excepting 7,9,30,40,80,90, the phonetical value of the letters varies already since the earliest times, and that in many cases, as in those of 6,10,60,700,1000,the variations are very considerable. (3) That occassionally, as in the case of 10,60,70, the distinct letters, used in the later inscriptions and the MSS., are derived in various ways from cursive signs without a phonetical value."

In the light of the above conclusions of Buhler and considering that in the edicts of Asoka there are many variations for the signs of 200,50 and 6, it will be reasonable to think that these symbols were never intended to resemble with the existing letters, and also that the numerical signs were in vogue even before the time of Asoka. The most important thing is that we do not see much evolution in the shapes of these numerals, (we find only variations) during the centuries although the letters show definite evolution.

As regards the numerical signs found in the Gupta epigraphs, lithic or metalic,we do not find much evolution in them. There are variation in their forms but any regional, stylistic affiliation also is not possible. Although we do not subscribe with letter numeral theory we will have to describe these forms in term of letters, where ever necessary, because the letter forms are quite familiar with us. This is only for the sake of clarity and brevity.

For 1,2 and 3 there are one, two and three horizontal strokes respectively, placed one upon the other. Sometimes these strokes are bent, sometimes slanting.

Sign for 4 is found in the Damodarpur copper-plate of Kumaragupta I dated in Gupta Year 124 (our **No.18**) and resembles with the combination of **pa** and **ka**. This comes from the Bengal region. The other form for 4 also resembles a combination of the above letters,

but it is more cursive. Its vertical is bent at the lower lip. This comes from the Sanchi stone pillar inscription of Chandragupta II, dated in the Gupta year 93 (our **No.40b**).

Sign for 5 resembles with the letter **tu** in the Nalanda spurious copper- plate inscription of Samudragupta, dated in his regnal year 5 (our **No. 15**). The second figure comes from the Mathura stone pillar inscription of Chandragupta II, dated in his regnal year 5 and Gupta year 61 (our **No. 35**). On stretching our imagination we can say that it also resembles with letter **tu**; a slanting stroke with line head- mark is joined by another smaller stroke in the middle at right. This second stroke takes an upward curve which can be taken for a **u** medial. The third one comes from the Mandasor (Dasapura) stone inscription of king Prabhakara mentioning Chandragupta II and Govindagupta, dated in Malwa year 524 (Our **No. 43**). This resembles with the letter **ta**.

No sign for 6 has been found in the Gupta inscriptions.

The sign for 7 resembles the Greek letter **beta** in the Paharpur copper plate inscription of the time of Budhagupta,dated in Gupta year 159 (our **No. 22**). But in the Eran stone pillar inscription of the time of Bhanugupta and Goparaja, dated in Gupta year 191, (our **No. 47**) it takes a different shape.

The symbol for 8 can be described as a vertical line with its tip turned to right and **a** medial sign like horizontal stroke. This type of sign is found in the Gadhwa stone pillar inscription of Kumaragupta I (our **No. 4**) and the Mankuar stone Buddha image inscription of the time of Kumaragupta I, dated in the Gupta year 129 (our **No. 7**). But in the Jagdishpur copper plate inscription of the time of Kumargupta I, dated in Gupta year 128 (our **No. 21**) and the Nandapur copper-plate inscription of the year 169 (our **No. 25**) the shape is quite different. The Baigram copper-plate inscription of time of Kumargupta I year 128 gives entirely different shape which is merely a vertical line.

The signs for 9 are found in four inscriptions,our **Nos. 7, 20, 22 and 25**, but all of them bear different symbols. **Naishadhacharita** of Harsha (7.63) gives an interesting description. It compares the inner lines of the ears of Damayanti with the sign for number nine (**Karṇāntarūtkīrṇa gabhīrarekhaḥ kiṁ tasya saṁkhaiva navānavaṅkaḥ**). The symbol for 9 in the Mankuar stone inscription (our **No.7**) tallies with the description of Harsha but this sign in **No. 20** is incomplete., while in **No. 22** it takes the form of **la**, but in **No. 25** it resembles none.

The sign for 10 is found in 4 inscriptions, our **Nos. 4, 7, 20 and 35**. A curve opening to right has another almost similar stroke at its back in Gadhwa **(No.4)**, Mankuar **(No.7)**

and Mathura (**No.35**) but in **No. 20** the second curve is a little different.

The sign for 20 looks like a circle in the Mankuar (**No.7**) inscription but in others (**Nos. 14b, 18, 20, 21, 28 and 35**) it resembles some what the letter **tha**.

The symbol for 30 is found in the Sanchi stone pillar inscription of the time of Kumaragupta I, dated in the Gupta year 131 (our **No.42**). It resembles with the letter **la**. It will be interesting to compare it with the sign for 9 of the Paharpur inscription (our **No. 22**).

The sign for 40 does not occur in the Gupta inscriptions.

The sign for 50 appears to be capital Roman letter C, and it occurs in the Paharpur inscription (our **No.22**).

The sign for 60 resembles a Nagari letter **gu** in the Nandpur inscription (our **No. 25**) in the Mathura inscription (our **No. 33a**) it resembles the letter **chu**. However, in the Earn stone pillar inscription of the time of Budhagupta, dated in the Gupta year 165, it takes an entirely different form.

The sign for 70 also does not occurs in the Gupta inscriptions.

The sign for 80 occurs in the Udayagiri cave inscription of Chandragupta, dated in Gupta year 88 (our **No. 40a**). Two linga like formations seems to have been drawn on a horizontal base for the symbol for 80.

The sign for 90 looks like a cross inside a circle in the Gadhwa inscription (our **No.4**) and Sanchi inscription (our **No.40b**); but in the Earn inscription (our **No. 47**) it takes an interesting form.

The symbol for 100 can be said to be of the shape of **sa** or **a** and it is found in as many as elven inscriptions. In some cases it forms a loop at the left while in others it is just a tail.

The symbol for 200 is found only in one inscription, i.e. in the Bhitari fragmentary stone inscription dated in the Gupta year 221 (our **No. 14f**). It resembles with the looped **sa** with an additional stroke at the right limb.

REFERENCES

1. Buhler, G.,1904, Indian Palaeography (Tr. by Fleet), ***IA***, Vol. XXX111, Appendices 1-6.
2. Dhruva, H.H., 1894, Three Land- grants from Sankheda, ***EI***, Vol II, Calcutta (reprint 1970, Varanasi), pp. 19-24.
3. Srivastava, O.P.L., 1986, ***Uttara Bhārata Men Aṅokon kā Vikās***, (Hindi), Varanasi.

* * *

CHAPTER VIII

RESUME

The script of the time of the Imperial Guptas had its origin in the Asokan Brahmi script which acquired this form after going through several developmental stages during the last seven centuries. During this long span of time it developed in two directions. With prolonged usage in certain areas the script developed regional traits by the local writers. On the other hand each generation of writers contributed his own element in writing and thus the letters gradually changed their faces. For this, two elements were responsible. First was the speed. The desire to write more swiftly gave rise to curvive forms. The second was the desire for ornamentation. This desire led to the symmetry in lines and flourishes in letter forms and medial signs. The third factor which affected the course of writing in India was the use of different writing materials. In writing material not only the base material like paper, stone, metal, birch-bark or palm-leaf matters but the tool material like pen, ink, stylus, chisel, etc also played their vital role in the development of script. But, however, in the Gupta period we find that the script had acquired several faces in different regions which later developed into regional styles. But during the period of the Guptas these regional variations were still in the process of formation. This is why we have avoided the name Gupta script because we cannot find a uniform script throughout during this period. In fact the Gupta kings themselves adopted the regional traits in different regions for their inscriptions.

In our plan of study we have classified the inscriptions according to regions, which formed the subject matter of different chapters. In the subject matter of the first chapter we have already discussed in the preceeding paragraph. The second chapter deals with the North Indian style with its centre at Kausambi. This has occasionally been called as Middle Ganga Valley or Kausambi style also. The third chapter is devoted to the Eastern Indian style dealing with the inscriptions of Bengal and Bihar. In this chapter the letter forms from

seals on terracotta and silver have also ben discussed. The Western Style with its centre at Mathura forms the subject matter of the fourth chapter. The Malwa Style of Madhya Bharata is discused in the fifth chapter. This area was prone to the influences from both the southern and the northern India. But during the later part of the Gupta rule it got rid of its southern influences and was on its way to develop its own regional style. The sixth chapter deals with the script on the gold coins of the Imperial Guptas. Our study shows that the script on these coins belongs to the North Indian or Middle Ganga Valley style, although some letters show some regional affiliation also. But on this account it is difficult to say whether the Gupta mints had some regional offices or not. The numerals found in the Gupta inscriptions have been studied in the seventh chapter. Our study shows that the figures of the numerals do not exhibit letter forms. They have their own signs from the very beginning, and if there is any resemblance with the letter forms or conjuncts, it is superficial.

* * *

BIBLIOGRAPHY

Agrawal, P.K., 1983, ***Imperial Gupta Epigraphs***, Books Asia, Varanasi.

Agrawal, V.S., 1966, ***Indian System of Writing***, Delhi.

Ahmed, Nisar, The Bihar Stone Inscriptions of the Guptas : Some Observations (Unpublished paper), pp.1-20.

Allan, John, 1914, ***A Catalogue of Indian Coins in the British Museum: Coins of the Gupta Dynasties and of Sasanka,king of Gauda***, (Reprint 1991).

Allan, John, 1976, ***Catalogue of the Coins in the Indian Museum, Calcutta,*** Vol. IV, Delhi.

Altekar, A.S., 1957, ***The Coinage of the Gupta Empire***, N.S.I., Varanasi.

Astle, T.,1952, ***The Origin and Progress of Writing etc***. Delhi.

Banerji, R.D., 1919, ***The Origin of the Bengali Script***, University of Calcutta.

Barnett, L.D., 1913, ***Antiquities of India***, London.

Bastian, A., 1868,Indo-Chinese Alphabet. ***JRAS***.

Basu, Saktiprasad, 1956, Kushana Brāhmī Alphabet : A Prototype of Gupta Brāhmī, ***Indian History Congress (Proceedings of XIXth Session***, Agra, pp.176-177.

Bayley, Sir E. Clive, 1883, On the Genealogy of Modern Numerals : Simplification of the Ancient Indian Numeration, ***JRAS*** (NS), XV, pp.1-73.

Beelingham, C.F., 1940, Arabic Numerals, ***JRAS***, pp.61-64.

Bendall, C., 1886, On a System of Letter Numerals in South India, ***JRAS***.

Bhandarkar, D.R., 1922, Origin of the Indian Alphabet, ***Sir Asuttosh Mookerji Silver Jubilee Volume***, Vol. III. (Orientallia) Pt. 1,pp. 492-514.

Bishan, Svarup, R.B., 1922, The antiquity of Writing in India. ***JBORS***, VIII, pp. 46-53.

Bishan, Svarup, 1922, R.B., Indian Alphabet, ***JBORS***, VIII, pp. 99-119.

Buhler, G., 1882, On the Origin of the Indian Alphabet and Numerals, ***IA***, Vol. XI p. 268 ff.

Buhler, G.,1904, ***Indian Palaeography***, reprinted in ***Indian Studies : Past and Present***, Vol. I, (1959), Calcutta, originally published as appendix in ***IA*** (1904), Vol. XXXIII, as translated by Fleet.

Burn, R.,1946, Hindu Numerals : Reply, ***Asiastic Review***, XIII, p. 81ff.

Burn, R., 1949, Hindu Numerals : Reply, ***Asiatic Review***, XIII, p.81ff.

Burnell, A.C., 1878, ***Elements of South Indian Palaeography***, London.

Burnell, A.C., 1878, The Oldest known South Indian Alphabet, ***IA***, I.p. 229ff.

Chabra, B. Ch., 1944-1945, Brāhmī Lipi ka Vikas Aur Devanagri ki Utpatti, (Hindi), ***NPP***, XLI, pp. 276-300 with plates.

Chabra, B.Ch., Devaprayaga Brāhmī Inscription, ***EI***. XXX, pp. 133-135 with plates.

Chattopadhyay, Brajadulal, 1976, ***Coins and Currency Systems in Southern India***, New Delhi.

Cunningham, A., 1963, ***Coins of Ancient India***, Varanasi.

Cust, R.N., 1884, On the Origin of Indian Alphabet, ***JRAS***, (NS), XVI, pp. 325-359.

Cust, R.N., 1897, The Origin of Phoenician and Indian Alphabets, ***JRAS***, pp. 49-80.

Dani, A.H. 1963, ***Indian Palaeography***, London .

Das, gupta, C.C., 1934, On a New Type of Brahmi Ja inscribed on some Ancient Indian Coins, ***JRAS***, pp. 350-52.

Das, gupta, C.C. 1958, ***The Development of the Kharosthi Script***, Calcutta.

Das, Sukumar Ranjan, 1927, The Origin and Development of Numerals, ***IHQ***, III, pp. 97-120, 356-75.

Datta, Bibuhuti Bhushan, 1927, The Present Mode of Exposing Numerals, ***IHQ***,III,pp. 530-540.

Dhruva, H.H., 1894, Three Land-grants from Sankheda, ***EI***, Vol. II, Calcutta (reprint, 1970, Varansi), pp.19-24.

Diringer, David, 1953, ***The Alphabet***, A Key to the history of Mankind, 2nd Rev. Ed. Hutchison's Scientific and Technical publication, London.

Diringer, David, 1962, ***Writing***, London.

Diskalkar, D.B., 1954, Origin of Indian Epigraphy, ***JIH***, XXXII, (pts. 1-3) (Nos. 94-96) published by University of Travancore, pp. 291-307.

Diskalkar, D.B., 1955, Development & Decline of Indian Epigraphy; ***JIH,*** XXXIII, p. 289ff.

Diskalkar, D.B., 1955, The Progress and Future of Indian Epigraphical Studies, ***JIH***, XXXIII, p. 131ff.

Diskalkar, D.B. 1957, Materials on which Indian Epigraphical Records were incised, ***JIH***, XXXV, pp.289 ff. and ***ibid***, Vol. XXXVI, p. 43ff.

Dowson, John, 1881, The Invention of the Indian Alphabets, ***JRAS*** (NS), XIII, p. 102ff.

Fleet, J.F. 1888, ***Corpus Inscriptionum Indicarun***, Vol III, Varanasi (reprint 1963).

Fleet, J.F., 1901, Spurious Indian Records, ***IA***, XXX, P. 201ff.

Gelb, I.J., 1963, ***A Study of Writing***, Chicago, 2nd ed.

Ghatak, J.C., Palaeographic Riddles (of Gupta & Kushan Palaeography). ***Ind. Cult;*** Vol. XIII, pp. 125-26.

Gokhale, Shobhana. (Mrs.) 1966, ***Indian Numerals***, Poona.

Gopal, Lallanji, 1966, ***Early Medievel Coin-types of Northern Indian***, Varanasi.

Goyal, S.R. 1967, ***A History of the Imperial Guptas***, Varanasi.

Goyal, S.R., 1984, ***Guptakālīna Abhilekha***, (Hindi) Kusumanjali Prakashan, Meerut.

Grierson, G., Buhler's Origion of the Indian Brahm Alphabet, ***IA***, XXIV, p.246ff.

Grierson, G., 1920, ***Index of Language Names***, Calcutta.

Gupta, S.P. and Ramachandran, K.S. (Ed.), 1976, ***The Origin of Brahmi Script***, Delhi.

Gupta, P.L., 1979, ***Prāchīn Bharat ke Pramukh Abhilekh*** (Hindi) pt. I., Annapurna Prakashan, Varanasi.

Heras, H.,1938-39, The Origin of the Sumerian Writing, ***JUB***, VII, pt_1, pp. 3-28.

Hertz, Amelja, The Origin of the Proto Indian and the Brahmi Script, ***IHQ***, XIII, pp. 389-99.

Hunter, G.R., 1934, ***The Script of Harappa and Mohenjodara and its relations with other scripts***, London.

Indraji, Bhagawanlal, 1877, On the Ancient Nagari Numerals, ***IA***, VI, pp. 342-48 & Pls.

Jayaswal, K.P., Brahmi Seals newly discovered at Patna, ***JBORS***, X, pp. 183-193.

Jayaswal, K.P., Unpublished Seals, ***JBORS***, XX, pp.1-6

Kabir, Humaun, 1958, Development of Language, Place of Script and Alphabet, ***JAHRS***, XXV, 50, pp. 180-4.

Kaye, G.R. 1911, On Indian Numerical Symbols, ***IA***, Vol. XL, pp. 49-54.

Kaye, G.R., 1911, The Asoka Numerals, ***IA***, Vol. XL , pp. 55-58.

Kincaid, C.A., 1945, Hindu Numerals, ***Asiatic Review***, XLI, pp. 95-97.

Kuppaswamy, B. 1949, The Problem of Script in India, ***JMU*** (NS), Vol. X.Sec. A, pp. 1-10.

Law, B.C., 1949-50, Geographical Data in Indian Inscription ***JGRJ***, Vol. VII, pp. 79-98.

Levi, Sylvin, 1906, The Kharoshta Country and the Kharoshti Writing (Eng. Tr.), ***JA***, Vol. XXXV.

Mahalingam, T.V., 1967, ***Early South Indian Palaeography***, University of Madras, Madras.

Marie, A., 1804, ***Materials used to write before the Invention of Printing***, Washington.

Mason, William, A., 1920, ***A History of the Art of Writing*** , The Macmillan Company.

Mehrotra, Ramamurti., 1945, ***Lipi Vikasa*** (Hindi), Agra.

Mishra, Vijaya Kant, 1948, The Origin of Writing in India, ***JIH***, Vol. XXVI, pp. 211-284.

Murhouse, A.C., 1946, ***Writing and the Alphabet etc***. London.

Narain, A.K.,1957, ***The Indo-Greeks***, Oxford.

Narain, A.K. and Verma, 1970, T.P., ***Prāchīna Bhārtīya Lipi Śāstra aur Abhilekhaki***, (Hindi), Siddharth Prakashan, Varanasi.

Ojha, G.H., 1959, ***Bhārtīya Prāchīna Lipimālā***, (Hindi), Munshi Ram Manohar Lal, Delhi, 3rd Ed.

Pandey, Chhabinath, 1958, ***Mudraṇa kalā*** (Hindi), Patna.

Pandey, R.B., 1957, ***Indian Palaeography***, Vaaransi.

Pandey, Rajbali, V.S.2022, ***Asoka ke Abhilekh*** (Hindi), Varanasi.

Pen, 1965, Writing in India, ***All India Writers Conference***, Lucknow, 1964-65.

Pelric, W.H. Flinders, 1912, T***he Formation of the Alphabet***, London.

Rapson, E.J.1895, Counter-mark on early Persion and Indian Coins, ***JRAS***.

Rapson, E.J., 1897, ***Indian Coins***, Strassburg.

Rastogi, Naresh Prasad, 1980, ***Origin of Brahmi Script : The Beginning of Alphabet in India***, Varanasi.

Richardson, E.C., 1930, ***Alphabet and Writing***, Chicago.

Roy, P.C., 1980 ***The Coins of Northern India***, New Delhi.

Saha, R.N., 1931, ***The Origin of the Alphabet and Numerals***.

Sahni, D.R., 1927-28, Mathura Pedestal Inscription of the Kushana year 14, ***EI***, Vol.XIX.

Sarma, S.R., 1985, Writing Material in Ancient India, Aligarh Journal of ***Oriental Studies, Vol. II, pp. 175-96***

Sharma, B.N., 1972, ***Social and Cultural History of Northern India***, c.A.D. 1000-1200, New Delhi.

Singh, Arvind Kumar, 1988, Impact of writing materials on the Evolution of Brahmi Script, T.P. Verma and O.P. Tandon (Ed.) ***Studies in Indian History and Culture***, Varanasi, pp. 133-40.

Singh, Awadhesh Narayan, 1934, On the Evolution of Alphabetic Numerals in India, ***JUPHS,*** VII, Pt. 1, pp. 42-53.

Sircar, D.C., 1965, ***Select Inscriptions, bearing on Indian History and Civilization,*** Vol. I, from the sixth century, B.C. to, the Sixth century A.D. Calcutta, 2nd revised and enlarged edn.

Sircar, D.C., 1951, The Age of Imperial Unity in R.C. Majumadar et.al.(ed.) ***History and Culture of Indian People***, Vol. II, Bhartiya Vidhya Bhawan, Bombay.

Sircar, D.C., 1961-62, Brahmi Inscriptions from Mathura, ***EI***, Vol. XXXIV.

Sircar, D.C., 1968, ***Studies in India Coins***, Delhi.

Sircar, D.C., 1970-71, Introduction to Indian Epigraphy and Palaeography, ***JAIH***, IV, pp. 72-136.

Skinner, F.N., 1905, ***Story of the Letters and Figures***, Chicago.

Srivastava, Om Prakash Lal, 1981, ***Uttar Bhārat men Aṅkon Kā Vikās***, (Hindi), Varanasi.

Stange, E.F., 1970, ***Alphabets,*** London.

Sukumar, Ranjan, 1927, The Origin and Development of Numerals, ***IHQ***, II, p. 97ff. and 358ff.

Thomas, E.J., 1940, Interpretation of Indian Seals, ***IHQ***, XVI, pp. 688-689.

Tripathi, Satya Narayan, 1964, ***Hindi Bhāsha aur Lipi kā Aitihāsika Vikāsa*** (Hindi) Banaras.

Unesco, 1965, ***The Art of Writing***, Unesco.

Upasak, C.S., 1960, ***The History and Palaeography of Mauryan Brahmi Scrip***t, Nalanda.

Upasak, C.S., 1961, Some Salient Features of Brahmi on Gupta Coins, ***JNSI,*** Vol. XXIII, Varanasi, pp. 216-240.

Upreti, B.D. 1972, ***Hindī Bhāsha aur lipi kā Vikās evam Svarūp***, (Hindi) Allahabad.

Vasu, Nagendra Nath, 1896, The Origin of the Nagaras and the Nagari Alphabet, ***JASB***, LXV, Pt. I, pp. 114-35.

Vasu, Nagendra Nath, 1924, ***Bhāratiya Lipi Tattva*** (Hindi), Jaipur.

Verma, Dhirendra, 1949, ***Hindī Bhāshā aur Lipi*** (Hindi), Allahabad.

Verma, T.P., 1964, Fresh Light on the Origin of Brahmi Alphabet, ***JOI***, XIII, pp. 360-71.

Verma, T.P., 1971, ***The Palaeography of Brahmi Script in North India***, Varanasi.

Verma, T.P., 1976, ***Development of Script in Ancient Kamrupa***, Assam.

Verma, T.P., 1985, Obervation on the Epigraphic References to Temple Style, ***Indian Epigraphy Its Bearing on the History of Art***, in Frederick M. Asher & G.S. Gai (Ed.) AIIS, New Delhi, pp. 209-11.

Verma, T. P., 1989, Progress of Modification of the Alphabet as revealed by Coins, Seals and Inscriptions from Mathura in Doris, M. Srinivasan (ed). ***Mathura : The Cultural Heritage***, AIIS, New Delhi.

Verma, T. P., 1990 ***Purābhilekh Chayanikā***, Pt. I (Hindi). Siddhartha Prakashan, Varanasi.

Verma, T. P. 1991. Samudragupta : Epigraphic and Numesmatic Sources, ***JNSI***, Vol. LIII, Varanasi, pp. 114-138.

Waddell, L. A., 1927, ***The Aryan Origin of the Alphabet***, Luzac and Co., London.

Walawalkar, A. B., 1951, ***Pre Asokan Brahmi*** : A study of the Origin of Indian Alphabet, (Mahashwari Phonography), Bombay, with an Appendix by L. S. Wakankar.

* * *

INDEX

Adityasena 32
Afghanistan area 1
Agathocles 5
Agrawal 29
Allahabad museum inscription 13. 14. 17. 18
Allahabad pillar inscription 23, 25, 27, 37, 39, 68
Allan 65, 69, 72
Altekar 65, 66, 67, 69, 70, 71, 73
Amoghabhuti 6
Anantasena 28
Andhau inscription 11
Antialkidas 4
Aremic 1
Asoka 1, 3, 4, 16, 20, 76
Asokan Brahmi 1, 3, 6, 80
Asokan edicts 2, 3
Asokan inscriptions 1
Asokan period 4
Asvaghosha 18, 20
Ayodhya 11, 16

Baigram 36
Baigram copper-plate inscription 35, 77
Bakshtali 75
Bandhuvarma (n) 51, 59
Basarh 13, 18, 20
Besnagar Garuda pillar inscription 4, 5
Bhadrarya 28
Bhanugupta 51, 62, 77
Bharhut 7, 8
Bharhut inscription 8
Bhita 13, 17
Bhitari 27
Bhitari fragmentary stone slab inscription 30, 78
Bhitari inscription 27, 28, 30
Bhitari silver seal 38
Bhitari stone pillar inscription 19, 26
Bihar (Biharsharif) stone pillar inscription 28
Bijaygarh 12
Bilsad inscription 55
Bilsad stone inscription 53, 54
Bilsad stone pillar inscription 50, 53
Bodhgaya 11
Brahmi 1, 3, 6, 8, 12, 20
Brahmi script 1, 2, 3, 4, 5, 6, 8, 11, 12, 14
Budhagupta 30, 31, 35, 40, 43, 48, 51, 60, 61, 77, 78
Buhler 3, 5, 6, 75, 76
Chandra 45, 67
Chandragupta 16, 78
Chandragupta I 16, 32
Chandragupta II 18, 23, 32, 42, 44, 50, 51, 53, 58, 67, 71, 72, 77
Chandragupta- Kumardevi coin-type 69
Chandragupta Vikramaditya 17
Chandraprabha 50
Chandravarma 21
city-guild 5
copper-plate (s) 2, 20, 34, 35, 40, 43, 66
copper-plate inscriptions 58
Cunningham 5
Damayanti 77
Damodarpur 37, 38
Damodarpur copper-plate 76

Damodarpur copper-plate inscription 34, 35, 37
Dani 2, 3, 4, 5, 9, 11, 12, 17, 18, 20, 21, 22, 23, 27, 31, 34, 42, 43, 45, 55, 59, 63, 64, 73
Dasharath 3
Deo-Barnaka inscription 32
Deoria stone inscription 67
Dhanaidah copper-plate inscription 34
Dharmapala 5, 6
Dhruvasvamini 18, 20
Dighwa-Dubauli grant 32
Eran 4, 5
Eran inscription 18, 50, 78
Eran stone pillar inscription 20, 50, 51, 60, 62, 77, 78
Fleet 17, 28, 29, 31, 32, 54, 55, 69, 75
(-) gupta 37
Gadhawa 24, 26, 27, 77
Gadhawa inscription 23, 24, 78
Gadhawa stone panel inscription 18, 24
Gadhawa stone pillar inscription 18, 19, 26, 77
Gaya copper-plate(s) 20, 31, 32
Gaya spurious copper-plate 31,
Ghatotkacha 16, 50
Ghatotkachagupta 38, 56
Gopraja 51, 62, 77
Govindagupta 51, 58, 77
Govindnagar (Mathura) stone Buddha image pedestal inscription 43, 46
Goyal 16, 17
Gunaighar 38
Gunaighar copper-plate inscritption 32, 37
Gurjara inscription 75
Gurjaras 63
Greek pattern 4
Greek script 1
Gupta gold coin (s) 60, 67
Gupta inscription (s) 21, 22, 32, 67, 77, 78
Gupta script 1, 2, 14
Harivarma (n) 51, 61
Harsha 77
Harshavardhana 32
Heliodorus 4, 6
Hoernle 17, 75
Huvishka 11, 13, 17, 42
Imperial Gupta 1, 18, 20, 50, 66, 81
Imperial Gupta inscriptions 42
Incause-stamps 5
Indo-Greek 4, 5, 6, 66
Indorkheda copper-plate inscription 43, 47
Jagdishpur 36
Jagdishpur copper-plate inscription 35, 77
Jivitagupta II 32
Jogayyapetta 12
Junagadh rock inscription 63
Kacha 17, 67, 69
Kahaum 27, 28
Kahaum inscription 27, 28
Kahaum stone pillar inscription 19, 26
Kalaikuri 36
Kalaikuri (Sultanpur) copper-plate inscription 34, 35
Kanchi 16
Kanchipuram 16
Kanishka 17, 42
Kanishka I 11, 13
Kanishka era 14
Karamdanda 25, 26, 27
Karamdanda inscription 25, 26, 55, 68
Karamdanda stone linga inscription 19, 28
Kashi 16

Kasia 2
Kausambi 11, 12, 13, 14, 16, 17, 20, 21, 26, 27, 28, 39, 44, 48, 51, 73, 80
Kharoshthi 1, 11
Kharoshthi script 1
Kosala 16
Kosam 13, 17, 42
Kosam region 13
Kumaradevi 16
Kumaragupta I 17, 18, 19, 25, 26, 28, 32, 34, 35, 42, 43, 46, 50, 51, 53, 54, 55, 56, 57, 59, 67, 68, 71, 72, 73, 76, 77, 78.,
Kumaragupta II 30, 31, 38, 39
Kunindas 6
Kushana(s) 1, 11, 13, 14, 22, 23, 26, 27, 36, 42, 44, 45, 66
Kushana inscriptions 42
lipikara 3
Magadh 4
Magha dynasty 20
Magha rulers 13, 14, 17
Mahadevi Dhruvaswamini 38
Mahasthan inscrption 3
Mahendrapala 32
Maitrakas 63
Mandasor inscription 59
Mandasor (Daspura) stone inscription 51, 58, 77
Mankaur 77, 78
Mankaur stone Buddha image inscription 19, 77
Mankaur stone inscription 26, 77
Mathura 4, 8, 11, 12, 13, 14, 17, 22, 25, 26, 27, 42, 44, 47, 61, 78
Mathura fragmentary inscription 42, 44
Mathura inscription 18, 78
Mathura Kshatrapas 13, 14
Mathura stone image inscription 43, 46
Mathura stone Jain image inscription 42, 46
Mathura stone pedestal inscription 43, 48
Mathura stone pillar inscription 42, 44, 77
Mauryan Brahmi 2
Mauryan edicts 2
Mauryan empire 1, 46
Mauryan period 1, 3, 4, 6
Mehrauli iron pillar inscription 42, 43, 44, 45, 67
Mehrauli inscription 55
Nagarjuni hill cave inscription 3
Nagarjunikonda 12
Nalanda 31
Nalanda copper-plate 20, 31
Nalanda fragmentary terracotta seal 40
Nalanda spurious copper-plate inscription 77
Nalanda terracotta seal 39, 40
Nandpur 37, 38
Nandpur copper-plate inscription 37, 77
Nandpur inscription 78
Narain 4, 66
Narasimhagupta 39
Negama coins 5
Nisar Ahmad 28
Padmaprabha 50
Paharpur 36
Paharpur copper-plate inscription 35, 36, 77
Paharpur inscription 13, 78
Pakistan area 1, 11
Pantaleon 5
Parinirvana Chaitya 2
Pavarika 17, 20
Persian 5

V2:720bP N8S;2

Phonetic 3
Piprahva vase inscription 3, 4, 6
Post-Asokan period 4
Prabhakara 51, 58, 77
Prakataditya 30, 31
Prayaga 16
Prithivishena 28
(P) urugupta 28
Purugupta 72
Pushpadanta 50
Rajghat (Varanasi) stone pillar inscription 30
Ramgarh hill inscription 3, 6
Ramagupta 50, 52
Rapson 5
Rudradaman 11
Saba Virasena 51
Sahanushahis 16
Sahet-Mahet 13, 17, 20
Sahis 16
Sahni 12
Saka era 13
Saka Kshatrapas 8, 14, 17, 42, 67
Saka Murunda 16
Samudragupta 14, 16, 17, 18, 19, 20, 21, 23, 31, 32, 50, 51, 67, 68, 69, 70, 71, 77
Sankheda 75
Sanchi 7, 12, 13, 14, 17, 22
Sanchi inscription(s) 18, 54, 78
Sanchi stone pillar inscription 50, 53, 77, 78
Sanchi stone rail pillar inscription 50, 57
Sarnath 12, 13, 17, 20
Sarnath image inscription 31
Sarnath inscription 18
Sarnath stone Buddha image inscription 30
Sarnath stone inscription 30
Satvahanas 17, 63
Semetic 3
Shankarpur copper-plate inscription 51, 61
Silver coins(s) 66, 67, 73
Silver seal 40
Sircar 4, 13, 31, 32, 68
Sivaramamurty 65
Skanda 28
Skandagupta 17, 19, 26, 28, 43, 46, 63, 66, 67, 72
Sohgaura plaque inscription 3, 4
Sravastri 12
Srivastava 76
Subandhu 75
Supia 27
Supia stone pillar inscription 19, 26, 27
Susania rock inscription 21
Taxila 4, 5
Terracotta seal 40
Traikutakas 63
Tumain inscription 56
Tumain stone inscription 50
Udayagiri 24, 25, 54
Udayagiri cave inscription 18, 23, 24, 53, 54, 78
Udayagiri inscriptions 18, 50, 51
Upasak 3, 65, 66, 67, 69
Vainyagupta 32, 37, 40
Vaisali 38
Vaisali terracotta seal 38
Verma 2, 3, 4, 5, 6, 7, 11, 12, 17, 22, 32, 69
Vidisa stone Jain image inscription 50
Vishnugupta 40
Western Kshatrapas 63, 73
Yaudheyas 6

921972

PLATES

Plate I a

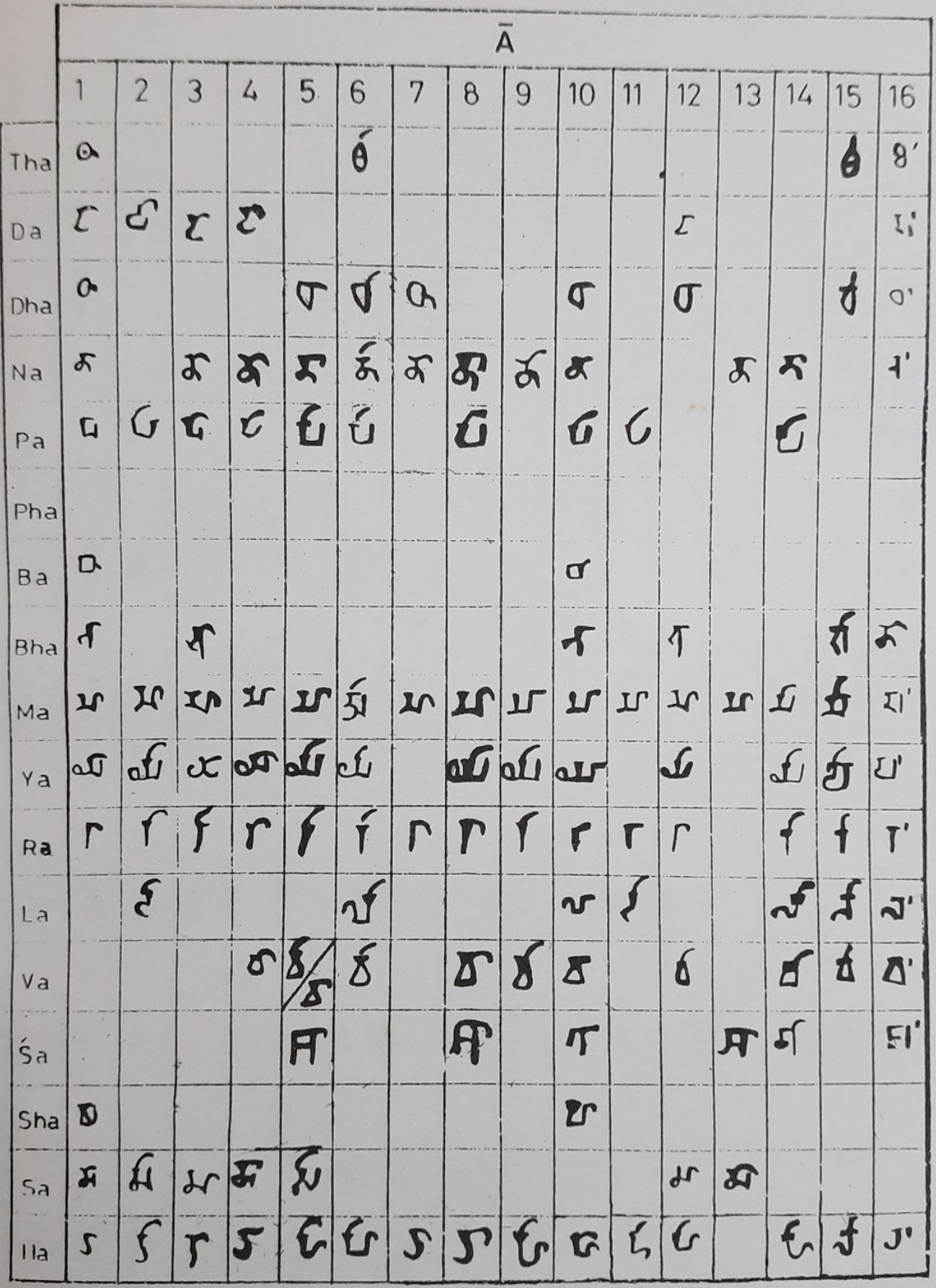
	A															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Vowel																
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha															
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																

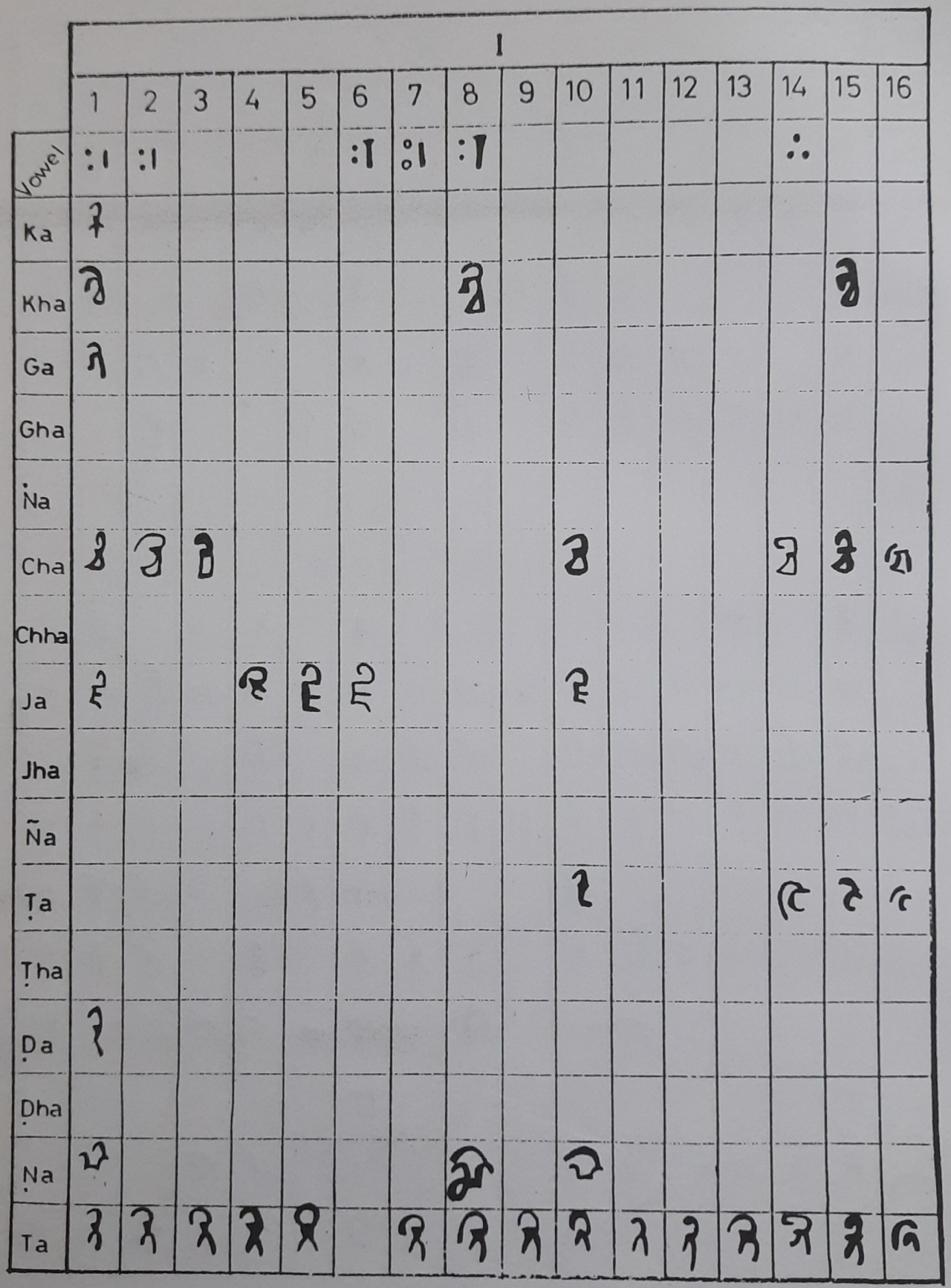
Plate Ib

	A															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Tha																
Da																
Dha																
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra																
La																
Va																
Śa																
Sha																
Sa																
Ha																

2

	Ā															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Vowel																
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																


Ā
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
Tha
Da
Dha
Na
Pa
Pha
Ba
Bha
Ma
Ya
Ra
La
Va
Śa
Sha
Sa
Ha


I
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
Vowel
Ka
Kha
Ga
Gha
Ña
Cha
Chha
Ja
Jha
Ña
Ṭa
Ṭha
Ḍa
Ḍha
Ṇa
Ta

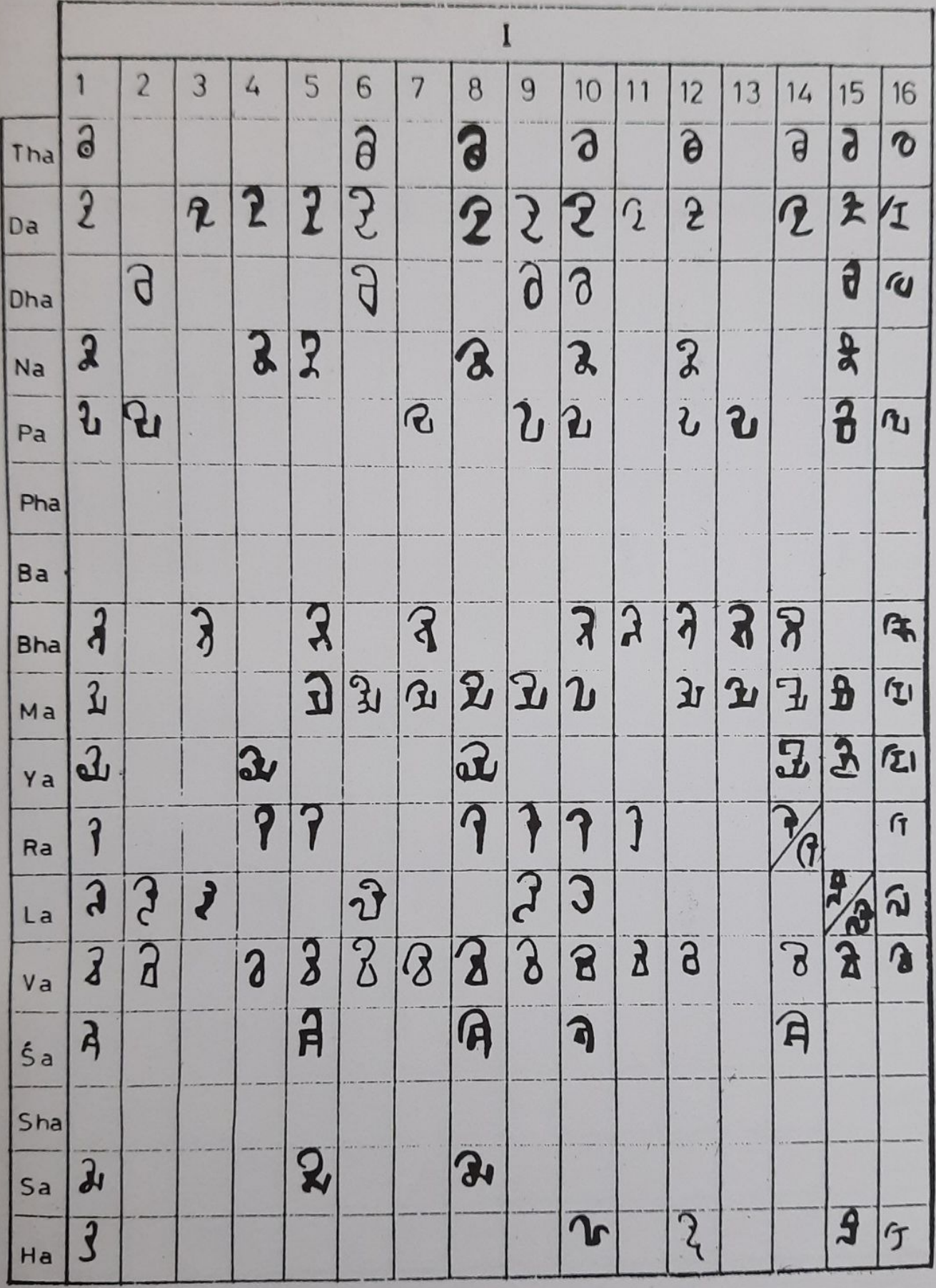
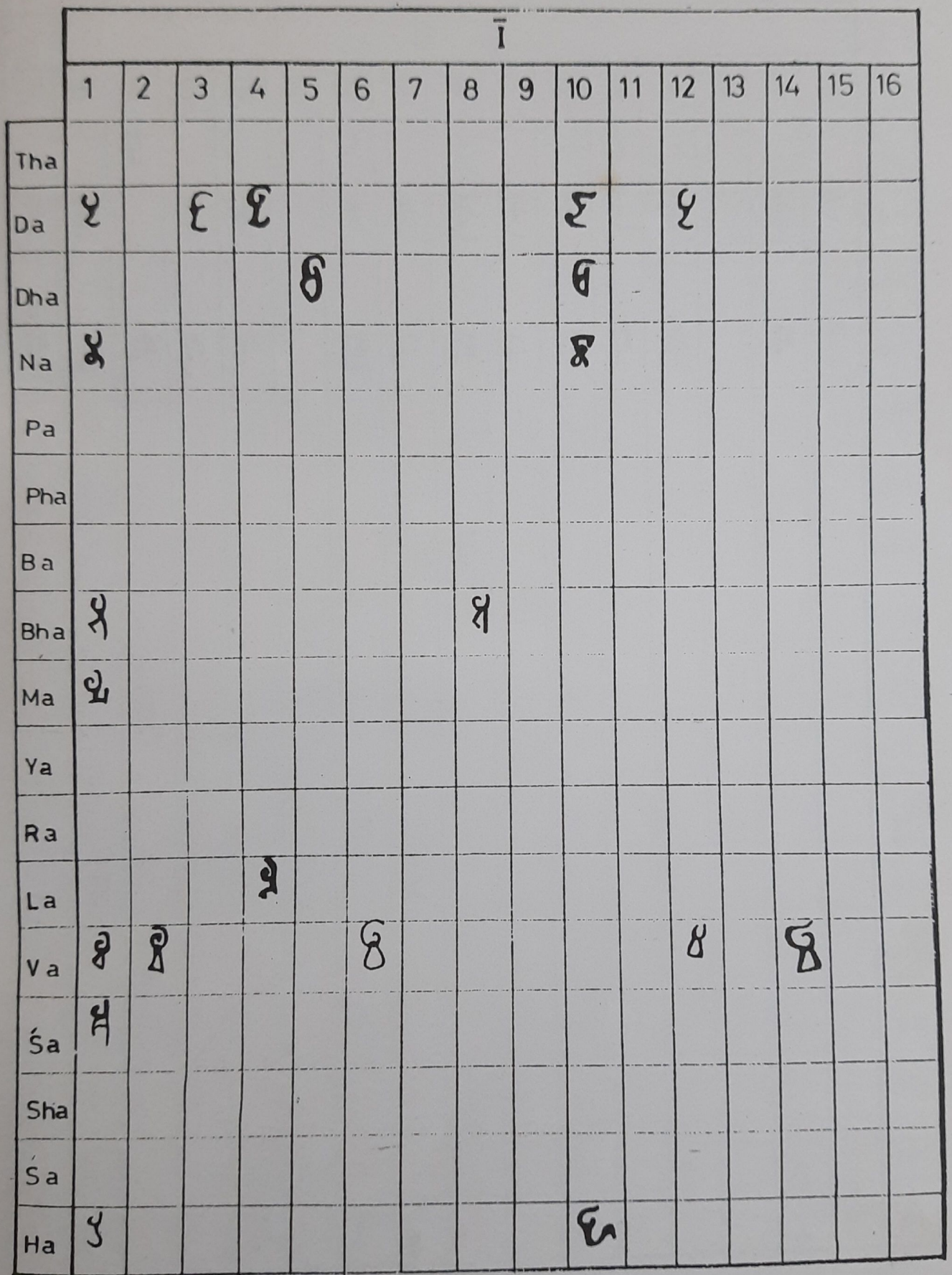

I
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
Tha
Da
Dha
Na
Pa
Pha
Ba
Bha
Ma
Ya
Ra
La
Va
Śa
Sha
Sa
Ha

Plate IV a

Vowel	ī															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																


ī
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
Tha
Da
Dha
Na
Pa
Pha
Ba
Bha
Ma
Ya
Ra
La
Va
Śa
Sha
Sa
Ha

	U															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Vowel																
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																	

U

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Tha																
Da																
Dha																
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra																
La																
Va																
Śa																
Sha																
Sa																
Ha																

	Ū															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Tha																
Da																
Dha																
Na																
Pa																	
Pha																
Ba																
Bha																	
Ma																
Ya																
Ra																
La																
Va																
Śa																
Sha																
Sa																
Ha																

Vowel	ṚI															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																

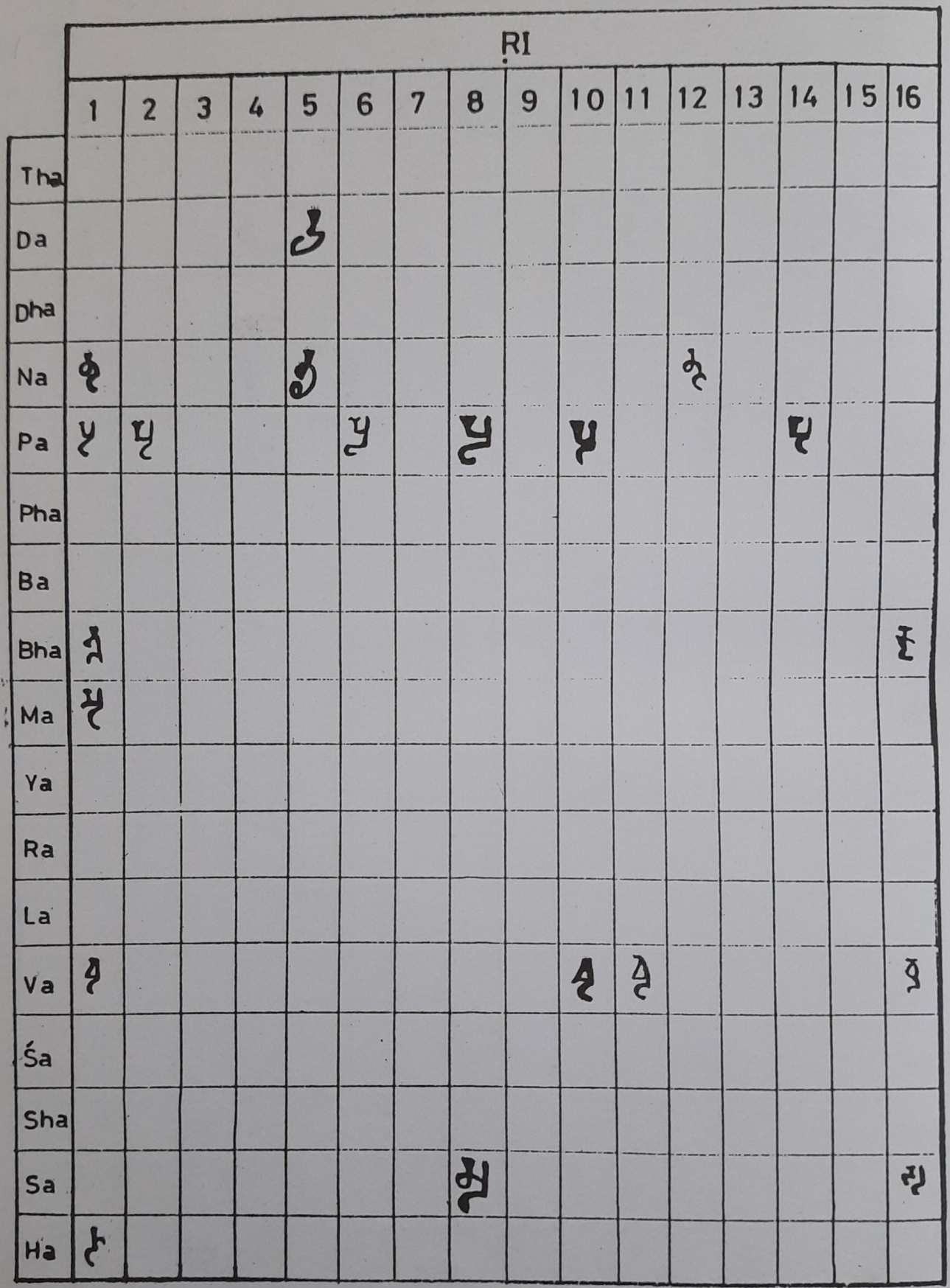
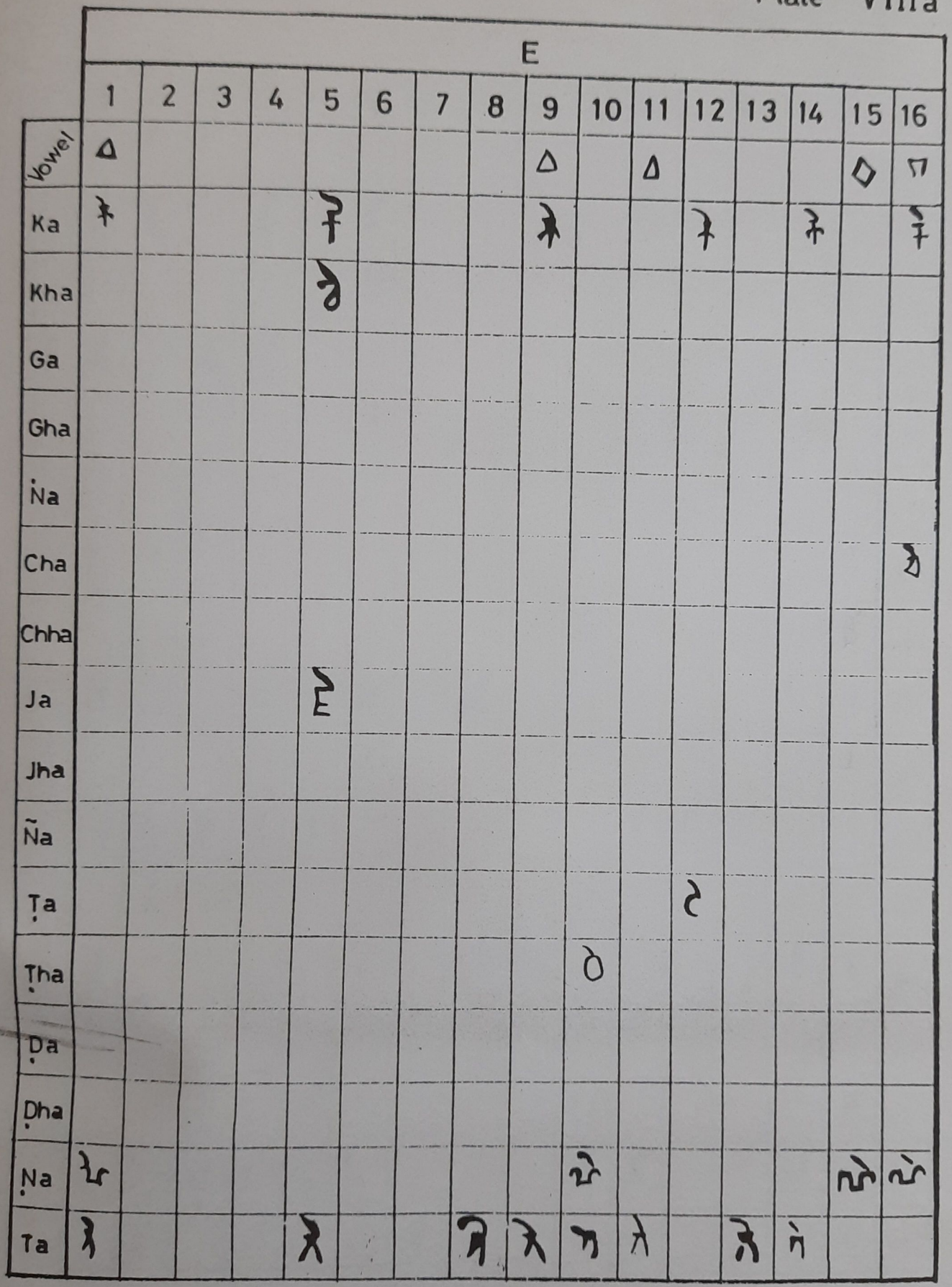
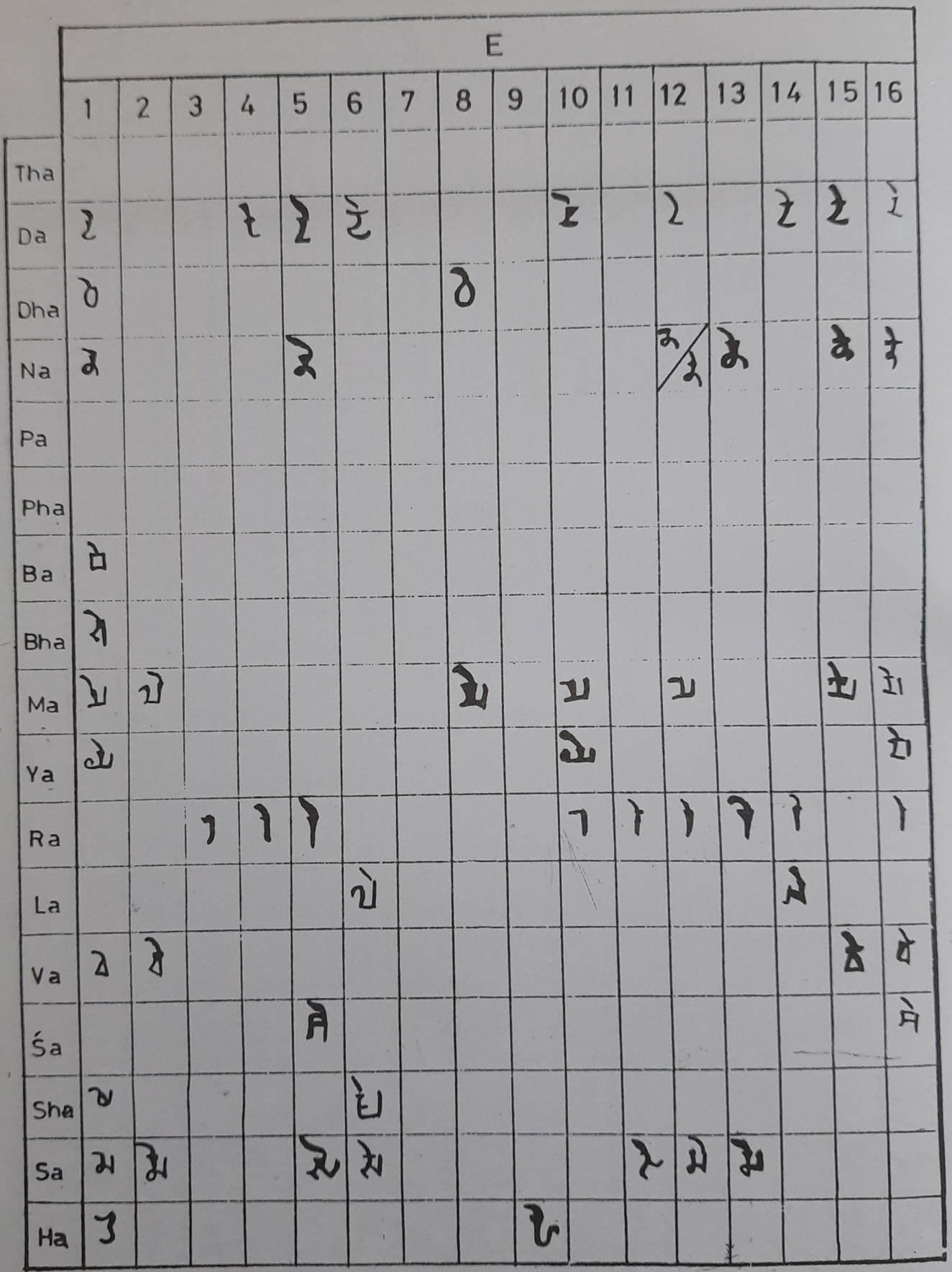

ṚI
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
Tha
Da
Dha
Na
Pa
Pha
Ba
Bha
Ma
Ya
Ra
La
Va
Śa
Sha
Sa
Ha

Plate VIIIa


E
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
Vowel
Ka
Kha
Ga
Gha
Ṅa
Cha
Chha
Ja
Jha
Ña
Ṭa
Ṭha
Ḍa
Ḍha
Ṇa
Ta


E
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
Tha
Da
Dha
Na
Pa
Pha
Ba
Bha
Ma
Ya
Ra
La
Va
Śa
Sha
Sa
Ha

Vowel	AI															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																

Plate IX b

	Ai															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Tha																
Da																
Dha																
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra																
La																
Va																
Śa																
Sha																
Sa																
Ha																

Vowel	O															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																

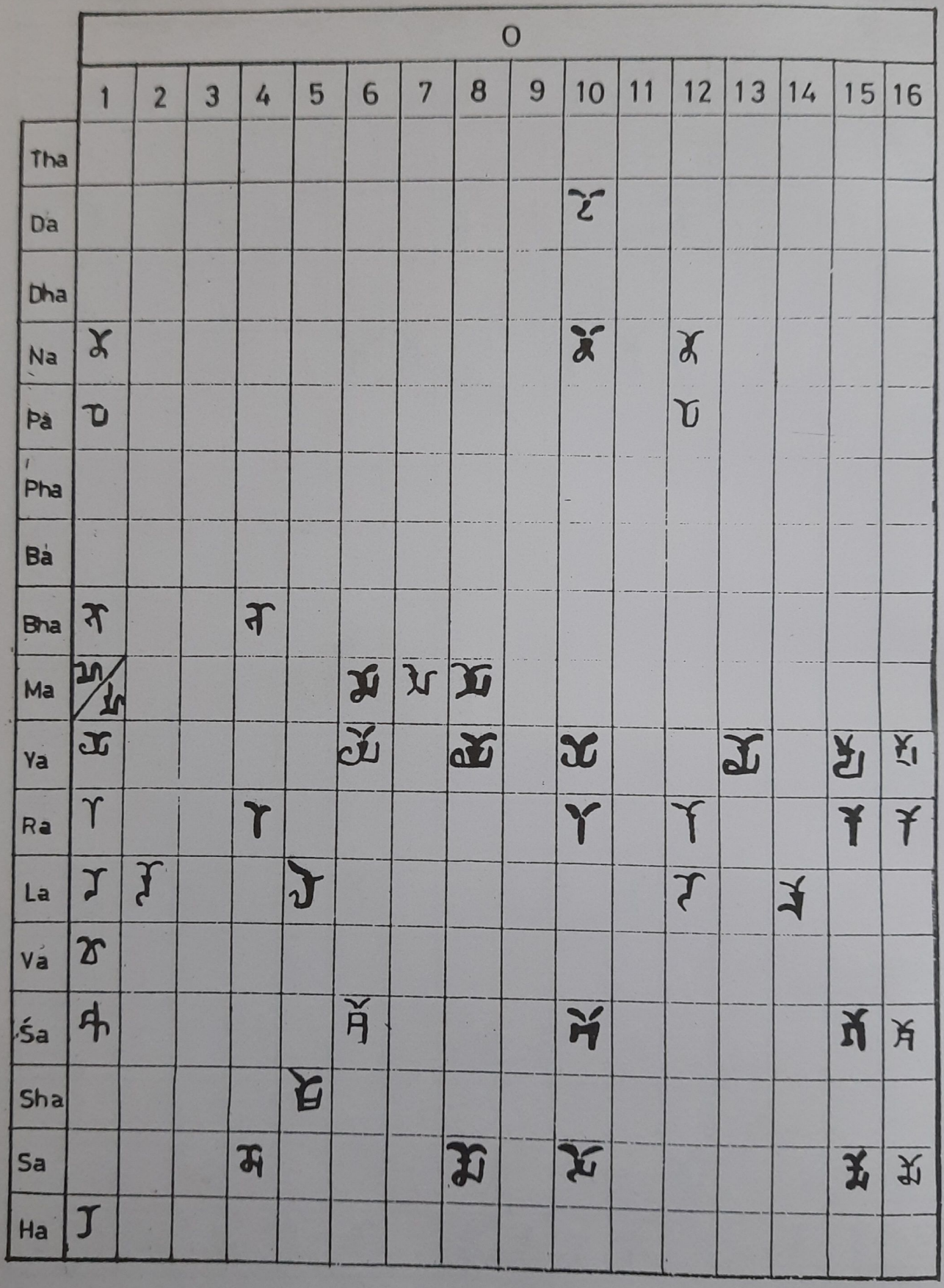
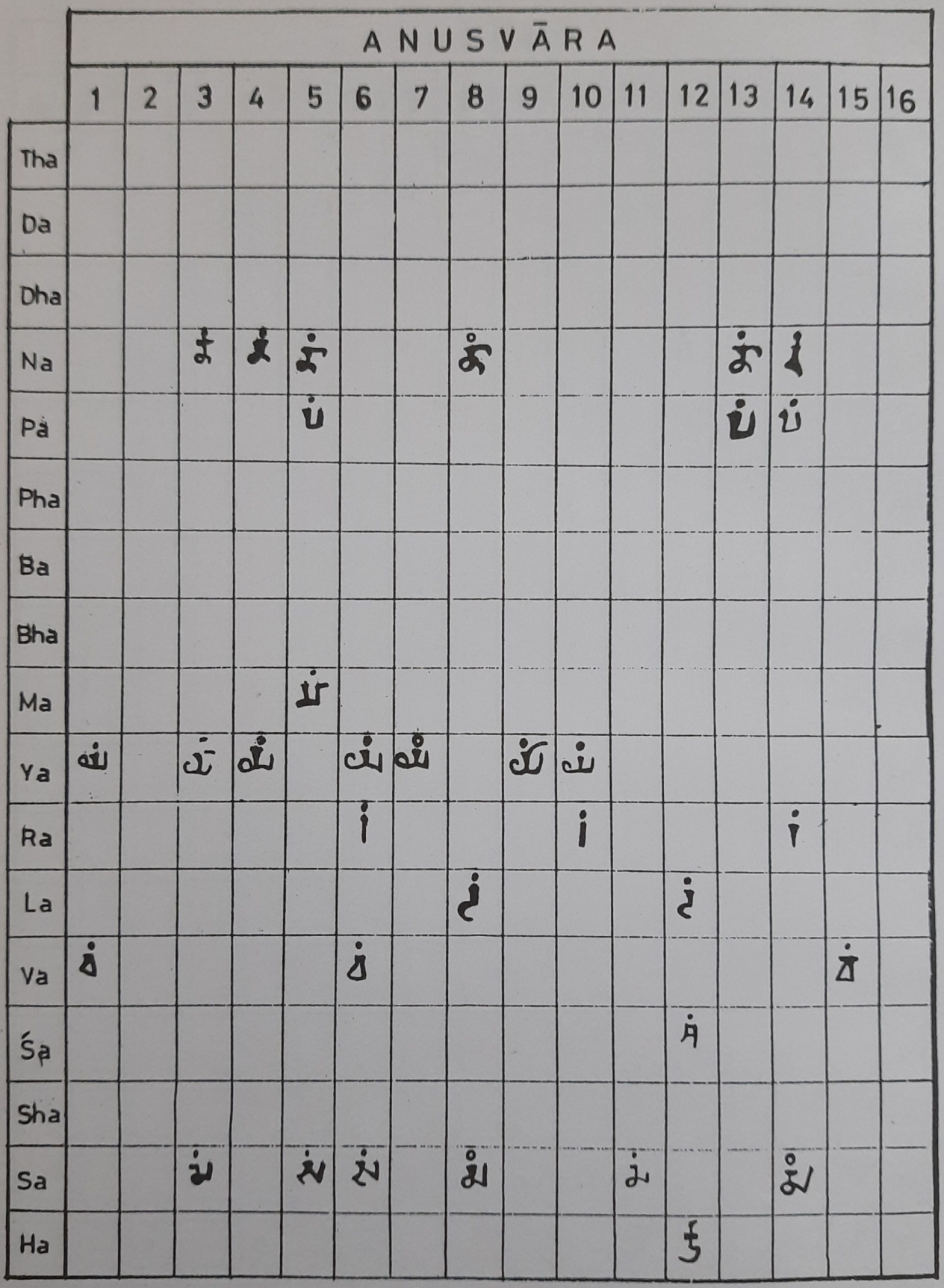

O
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
Tha
Da
Dha
Na
Pa
Pha
Ba
Bha
Ma
Ya
Ra
La
Va
Śa
Sha
Sa
Ha

Plate XI a

Vowel	AU															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																

	AU															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Tha																
Da																
Dha																
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra																
La																
Va																
Śa																
Śha																
Sa																
Ha																

Vowel	ANUSVĀRA															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																


ANUSVĀRA
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
Tha
Da
Dha
Na
Pa
Pha
Ba
Bha
Ma
Ya
Ra
La
Va
Śa
Sha
Sa
Ha

VISARGA

Vowel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ka																
Kha						-										
Ga						-										
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																

	VISARGA															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Tha																
Da																
Dha																
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra																
La																
Va																
Śa																
Sha																
Sa																
Ha																

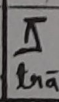
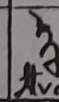
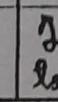
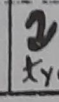
LIGATURES

Vowel	1				2				3				4			
Ka						Ktyā										
Kha																
Ga																
Gha																
Ṅa																
Cha			Chchhwa	Chyu					Chchhi				chchha			
Chha																
Ja	jñā															
Jha																
Ña		ñche	ñja										ñcha			
Ṭa	ṭṭā	Ttu														
Ṭha																
Ḍa																
Ḍha																
Ṇa													ṇyo			
Ta																

Plate XIV'b

LIGATURES
1
2
3
4
Tha
Da
dbha
Dha
Dhau
Na
ndhāḥ
Pa
pri
Pha
Ba
Bha
bhyu
Ma
mbru
mpā
Ya
yyu
yla
Ra
rju
rṇṇai
La
llai
Va
vyu
vyu
Śa
śchai
Sha
shṭhā
shṇu
shpa
Sa
stra
Ha
hya
hma

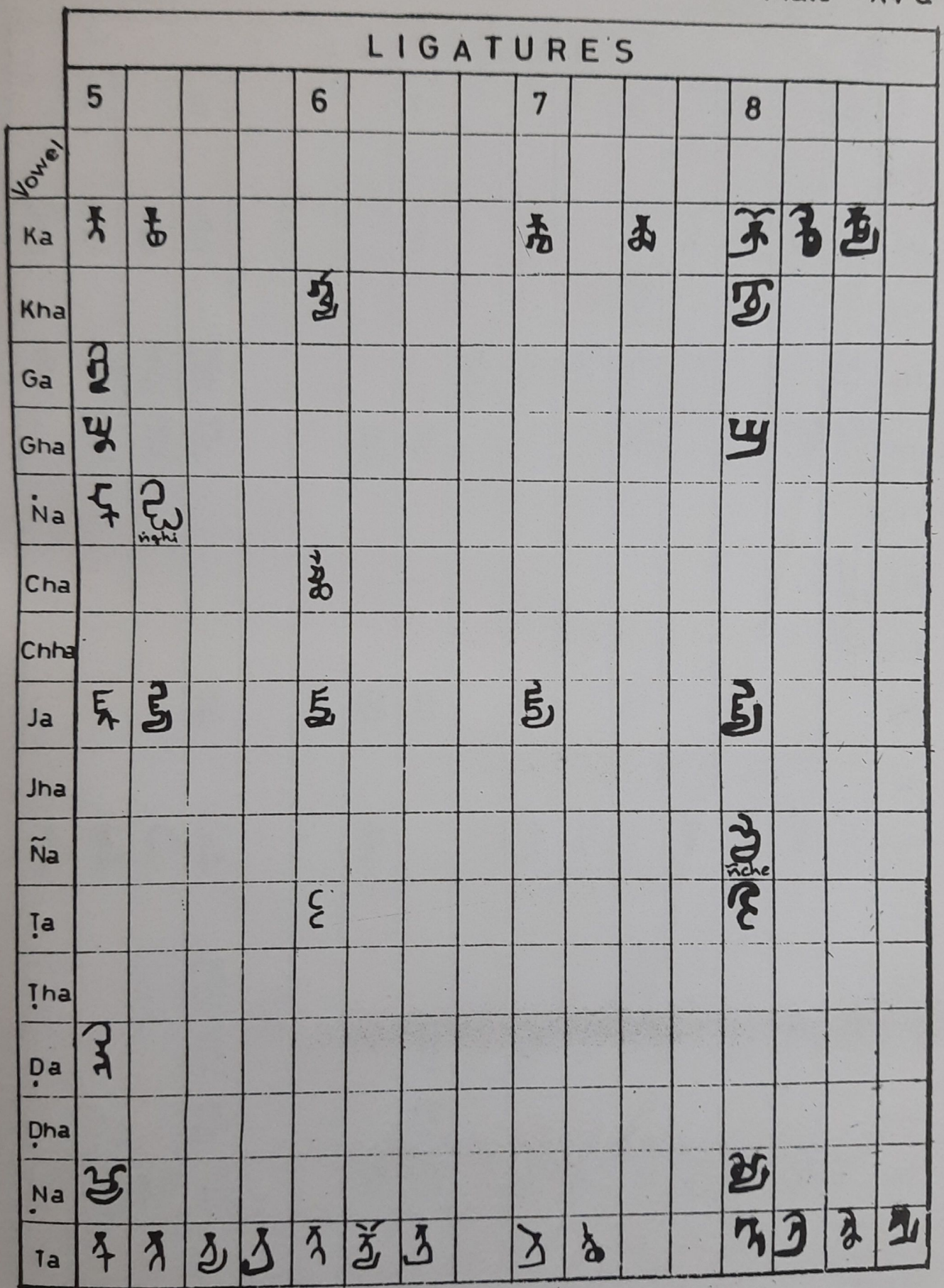
LIGATURES

Vowel	1				2				3				4			
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta.	 kṛā	 kvc	 kṣa										 kya			

LIGATURES

	1				2				3				4			
Tha																
Da																
Dha																
Na	nbu	nmi												nsa		
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra				rshā												
La																
Va																
Śa																
Sha																
Sa	sphu												ssa			
Ha					hka											

LIGATURES


5
6
7
8
Vowel
Ka
Kha
Ga
Gha
Ṅa
Cha
Chha
Ja
Jha
Ña
Ṭa
Ṭha
Ḍa
Ḍha
Ṇa
Ta
ṅghi
ñche

LIGATURES

	5				6				7				8			
Tha																
Da																
Dha																
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra																
La																
Va																
Śa																
Sha																
Sa																
Ha																

LIGATURES

Vowel	5				6				7				8			
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																

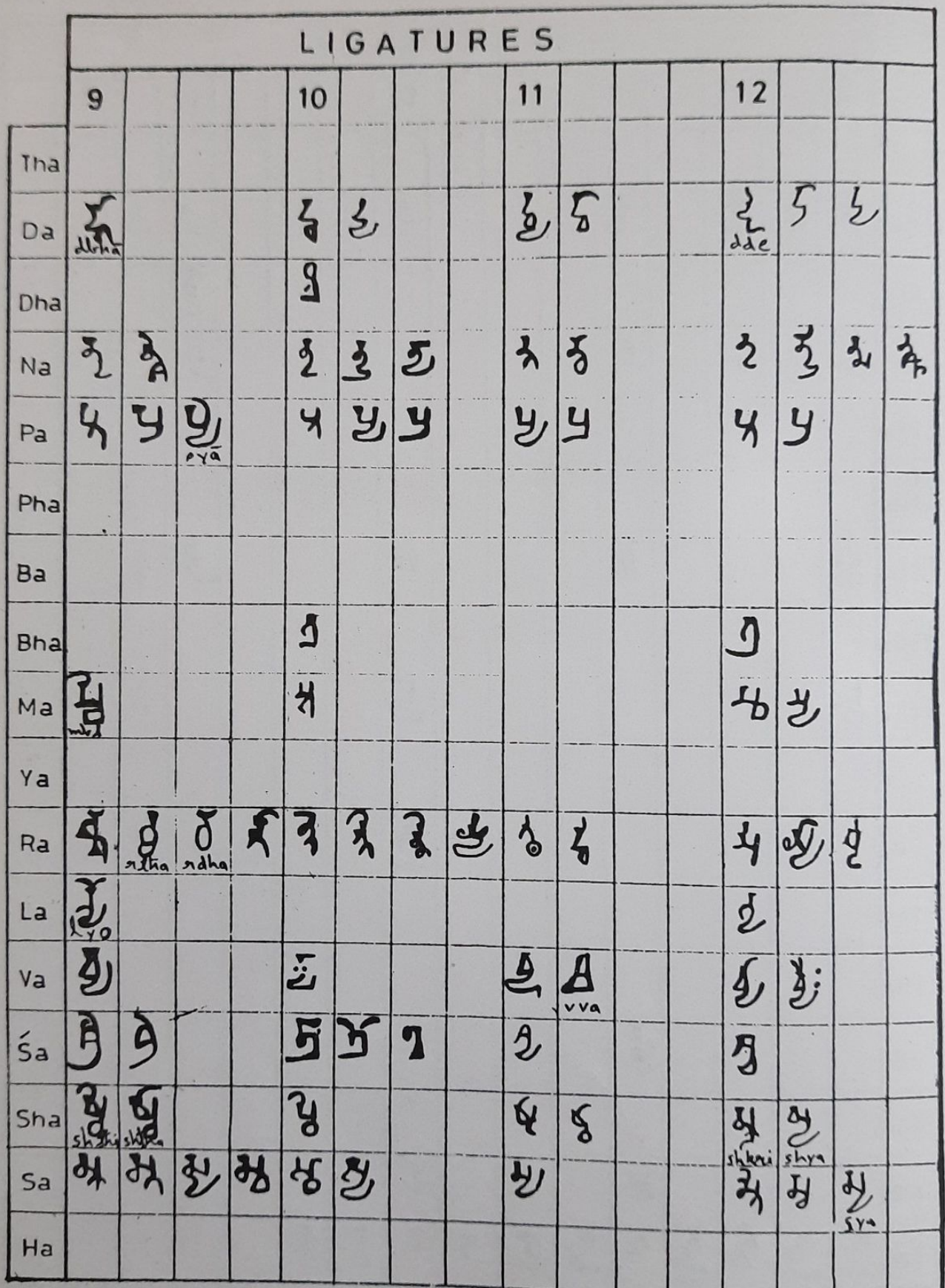
LIGATURES

	5				6				7				8			
Tha																
Da																
Dha																
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra																
La																
Va																
Śa																
Sha																
Sa																
Ha																

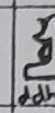
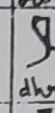
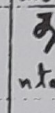
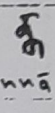
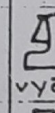
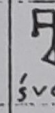
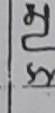
LIGATURES

Vowel	9				10				11				12			
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																

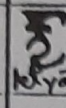
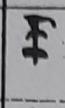
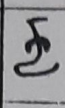
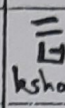
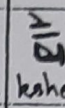
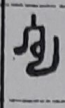
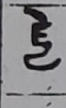
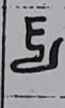
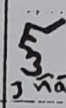
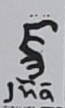
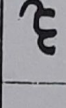
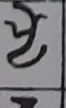
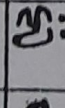
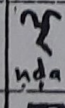
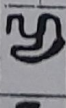
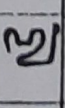
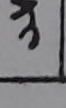
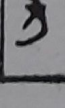
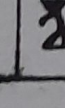
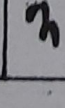
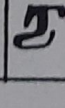
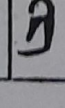
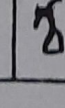
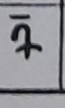
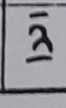
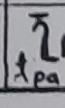
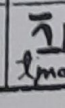
	LIGATURES															
	9				10				11				12			
Tha																
Da	dbha												dde			
Dha																
Na																
Pa			pyā													
Pha																
Ba																
Bha																
Ma	mbd															
Ya																
Ra		rtha	rdha													
La	lyo															
Va										vva						
Śa																
Sha	shthi	shtha											shkri	shya		
Sa															sya	
Ha																



LIGATURES

	9	10	11	12
Tha				
Da				 ddhyā
Dha				 dhva
Na				 nta  nnā
Pa				
Pha				
Ba				
Bha				
Ma				
Ya				
Ra	rnvā			
La				
Va				 vyā
Śa				 śva
Sha				
Sa				 sya
Ha				

LIGATURES

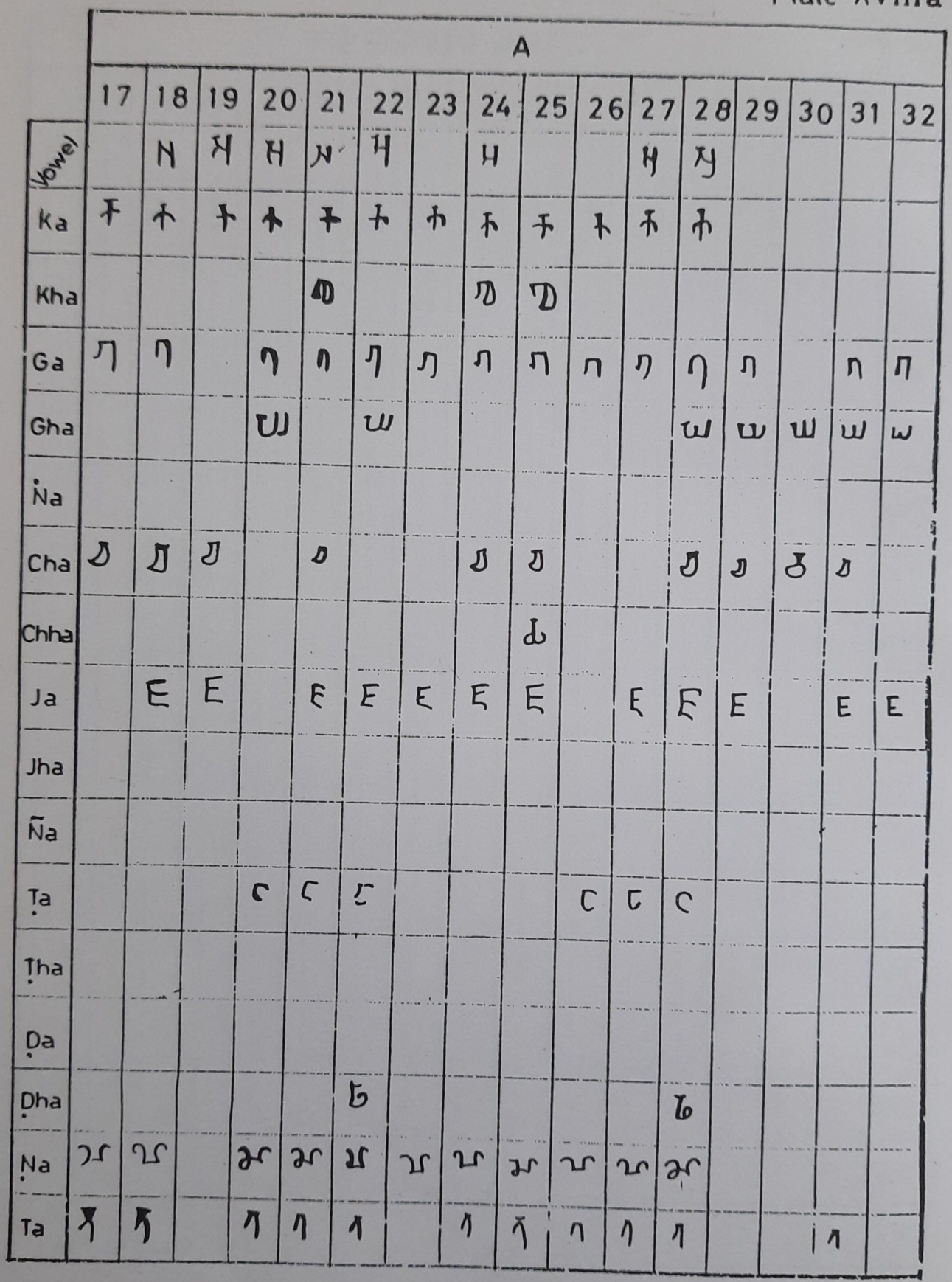
Vowel	13				14				15				16			
Ka	 kṛyā												 ksha	 kshe		
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja									 jñā				 jñā			
Jhá																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa						 ṇḍa										
Ta															 tpa	 tma

	LIGATURES															
	13				14				15				16			
Tha																
Da													dgra	ddī		
Dha																
Na													nla	ndhā		
Pa																
Pha																
Ba																
Bha																
Ma					mpa	mba	mbha						mbī		myā	
Ya																
Ra					rgu								rtta	rtha	rnyā	rvve
La																
Va														vyā		
Śa																
Sha					shka	shpa							shṭh	shmā		
Sa	stu														syā	svā
Ha													hma	hvṛ		

	LIGATURES															
	13				14				15				16			
Vowel																
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta										tve			tve	tve		

LIGATURES

	13				14				15				16			
Tha																
Da													ड्ड	ड्ढ		
Dha									द्ध							
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra																
La																
Va																
Śa																
Sha																
Sa																
Ha																

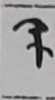
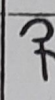
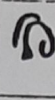
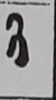
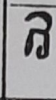
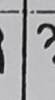
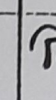
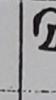
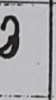
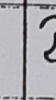
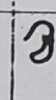
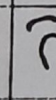
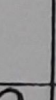
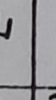
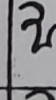
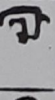
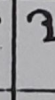
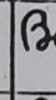
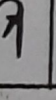
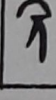
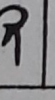
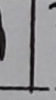
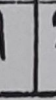

A
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
Vowel
Ka
Kha
Ga
Gha
Ṅa
Cha
Chha
Ja
Jha
Ña
Ṭa
Ṭha
Ḍa
Ḍha
Ṇa
Ta

	A															
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Tha																
Da																
Dha																
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra																
La																
Va																
Śa																
Sha																
Sa																
Ha																

	Ā															
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Vowel																
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																

Ā

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Tha																
Da																
Dha																
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra																
La																
Va																
Śa																
Sha																
Sa																
Ha																

	I															
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Vowel				ः	ः	ः					ः	ः				
Ka																
Kha																	
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																

I

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Tha																
Da																
Dha																
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra																
La																
Va																
Śa																	
Sha																
Sa																
Ha																

Vowel	ī															
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																

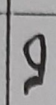
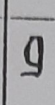
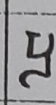
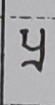
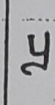
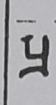
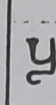
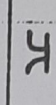
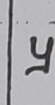
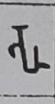
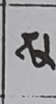
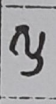
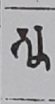
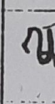
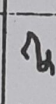
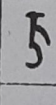
ī

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Tha																
Da																
Dha																
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																	
Ra																
La																
Va																
Sa																
Sha																
Sa																
Ha																

	U															
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Vowel																
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																

	U															
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Tha																
Da																
Dha																
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra																
La																
Va																
Śa																
Sha																
Sa																
Ha																

ū

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Tha																
Da																
Dha																
Na																
Pa																	
Pha																
Ba																
Bha																
Ma																
Ya																
Ra																
La																
Va																
Śa																
Sha																
Sa																
Ha																

Vowel	ṚI															
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																

RI

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Tha																
Da																
Dha																
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra																
La																
Va																
Śa																
Sha																
Sa																
Ha																

	E															
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Vowel				∆	∆	∆			∆		∆	∆				
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																

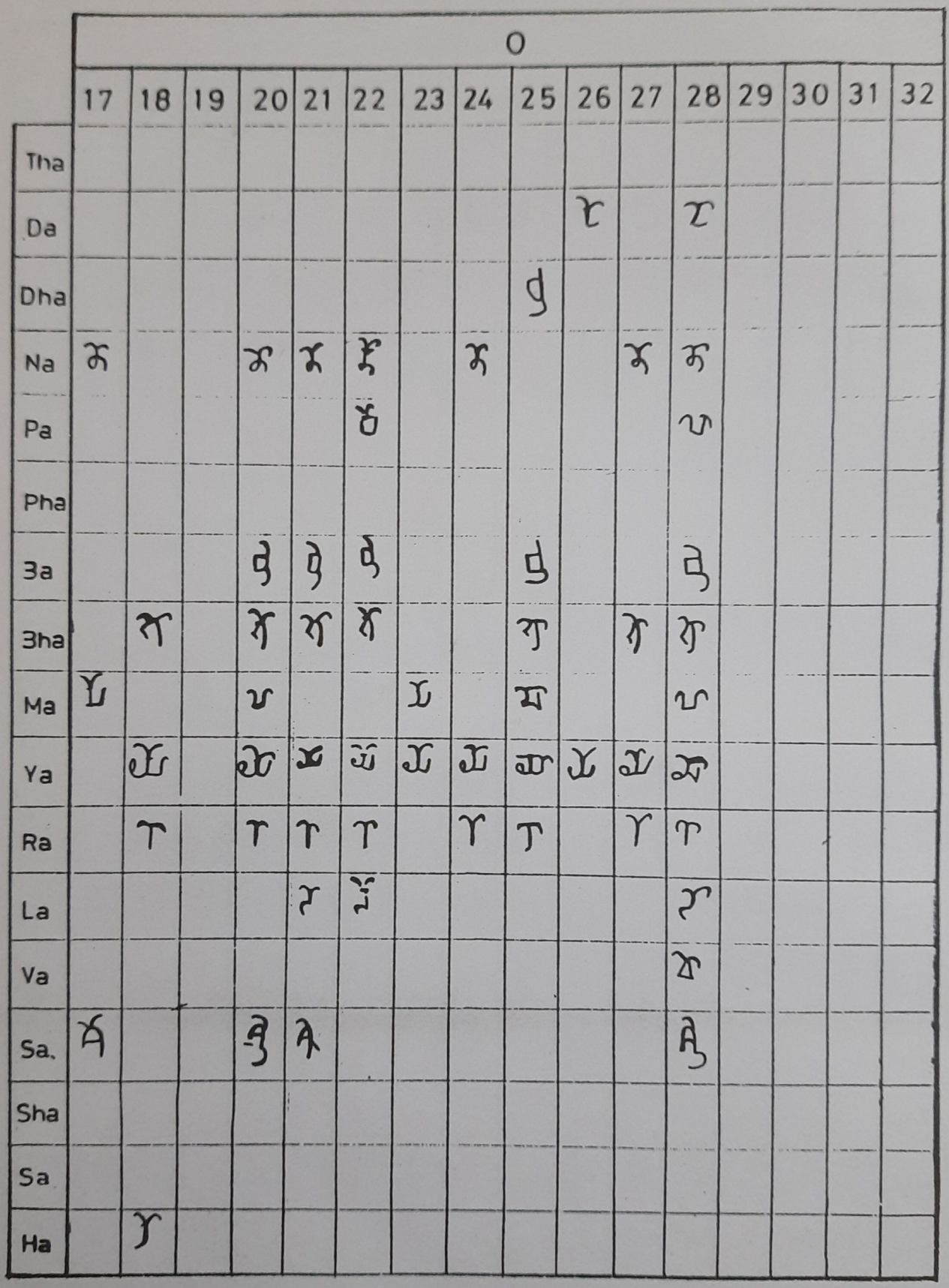
	E															
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Tha																
Da																
Dha																
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Ya'																
Ra																
La																
Va																
Śa																
Sha																
Sa																
Ha																

Vowel	AI															
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																

Plate XXVIb

	AI															
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Tha																
Da																	
Dha																
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra																
La																
Va																
Śa																
Sha																
Sa																
Ha																

	O															
Vowel	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																


O
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
Tha
Da
Dha
Na
Pa
Pha
Ba
Bha
Ma
Ya
Ra
La
Va
Sa.
Sha
Sa
Ha

Vowel	AU															
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																

	AU															
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Tha																
Da																
Dha																
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra																	
La																
Va																
Śa																
Sha																
Sa																
Ha																

	ANUSVĀRA															
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Vowel																
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																

ANUSVĀRA

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Tha																
Da																
Dha																
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra																
La																
Va																
Śa																
Sha																
Sa																
Ha																

VISARGA

Vowel	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																

	VISARGA															
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Tha												ఠః				
Da				ఢః	ఢః	ఢః	ఢః		ఢః			ఢః				
Dha						ధః			ధః		ధః	ధః				
Na				ఙః	ఙః	ఙః	ఙః	ఙః	ఙః			ఙః				
Pa								ఫః				ఫః				
Pha									[illegible]							
Ba																
Bha						ఞః	ఞః		ఞః		ఞః	ఞః				
Ma					ఙః											
Ya				ఘః	ఘః			ఘః				ఘః				
Ra								ఱః								
La					ఴః											
Va																
Śa																
Sha																
Sa																
Ha									ఽః							

LIGATURES

Vower	17				18				19				20			
Ka	kta		ksha					kshe								
Kha																
Ga					gnā								gnā			
Gha																
Ṅa													ṅgā			
Cha																
Chha																
Ja																
Jha																
Ña					ñcha									ñchha		
Ṭa									tta							
Ṭha																
Ḍa													ḍḍā	ḍḍhā		
Ḍha																
Ṇa																
Ta						tpā			ttam							tpra

LIGATURES

	17				18				19				20			
Tha																
Da	dya				dde								ddi	ddhi		dno
Dha																
Na	ntya					nthy							ngna			ndha
Pa																
Pha																
Ba					bma											
Bha													bhyo			
Ma					mva				mva						mna	
Ya																
Ra				rha											rkhū	
La														lyoh		
Va																
Śa																
Sha					shthā										shmā	
Sa																
Ha	hma				hma	hya							hnai		hyā	

	LIGATURES															
	17				18				19				20			
Vowel																
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta					[illegible]								[illegible]	[illegible]	[illegible]	[illegible]

LIGATURES

	17				18				19				20			
Tha																
Da																
Dha																
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra																
La																
Va																
Śa																
Ṣha																
Sa																
Ha																

LIGATURES

Vowel	21				22				23				24			
Ka				kshe		kkya					kshu					
Kha																
Ga					gyā											
Gha																
Ṅa						ṅgr										
Cha					chchhe											
Chha																
Ja																
Jha																
Ña						ñja										
Ṭa					ṭṭha											
Ṭha																
Ḍa					ḍḍhā											
Ḍha																
Ṇa		ṇḍu				ṇyā			ṇyā							
Ta					thā									tpra		

LIGATURES

	21				22				23				24			
Tha																
Da		dḍhyā				ḍḍrā	ḍḍhā			ḍḍrā						
Dha																
Na				ndhi		ndrā								nsi		
Pa																
Pha																
Ba																
Bha					bhyo											
Ma		mra			mkra			mpra	mpa							
Ya																
Ra							sthū									
La	lma															
Va		vrā														
Sa		sme ḥ														
Sha		shṭha	shṇā	shmā	shṭa	shṇu		shmā								
Sa					stū											
Ha	hma				hma	hyā			hma							

	LIGATURES															
	21				22				23				24			
Vowel																
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta	[illegible]				[illegible]	[illegible] Akshe										

	LIGATURES															
	21				22				23				24			
Tha																
Da																
Dha																
Na		npu			nma											
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra							rsha									
La																
Va																
Śa																
Sha	shpa															
Sa	sra				srā											
Ha																

LIGATURES

Vowel	25				26				27				28			
Ka				ksha												
Kha																
Ga																
Gha																
Ṅa	ṅgā												ṅku		ṅha	
Cha															ehyū	
Chha																
Ja													jña			
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa	ḍḍhā															
Ḍha																
Ṇa																
Ta																

LIGATURES

	25				26				27				28			
Tha													thyā			
Da																
Dha																
Na													ngrā			
Pa																
Pha																
Ba																
Bha																
Ma									mthā	mra	mtrā			mma		
Ya																
Ra																nsha
La													lma			
Va																
Śa											śla					
Sha			shma							shpa			shtha	shpa	shmā	
Sa		stha	smā	ssra											sma	
Ha	hma															

LIGATURES

Vowel	25				26				27				28			
Ka													क्ष	क्ष kshma		
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta	ड												ड	ड		

LIGATURES

	25				26				27				28			
Tha																
Da																
Dha																
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra			rsha													
La																
Va																
Śa																
Sha													shre			
Sa																
Ha																

LIGATURES

	29				30				31				32			
Tha																
Da																
Dha																
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra																
La																
Va																
Śa																
Sha																
Sa																
Ha																

Plate XXXIVb

	LIGATURES															
	29				30				31				32			
Vowel																
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta			tpa								tan					

Plate XXXV a

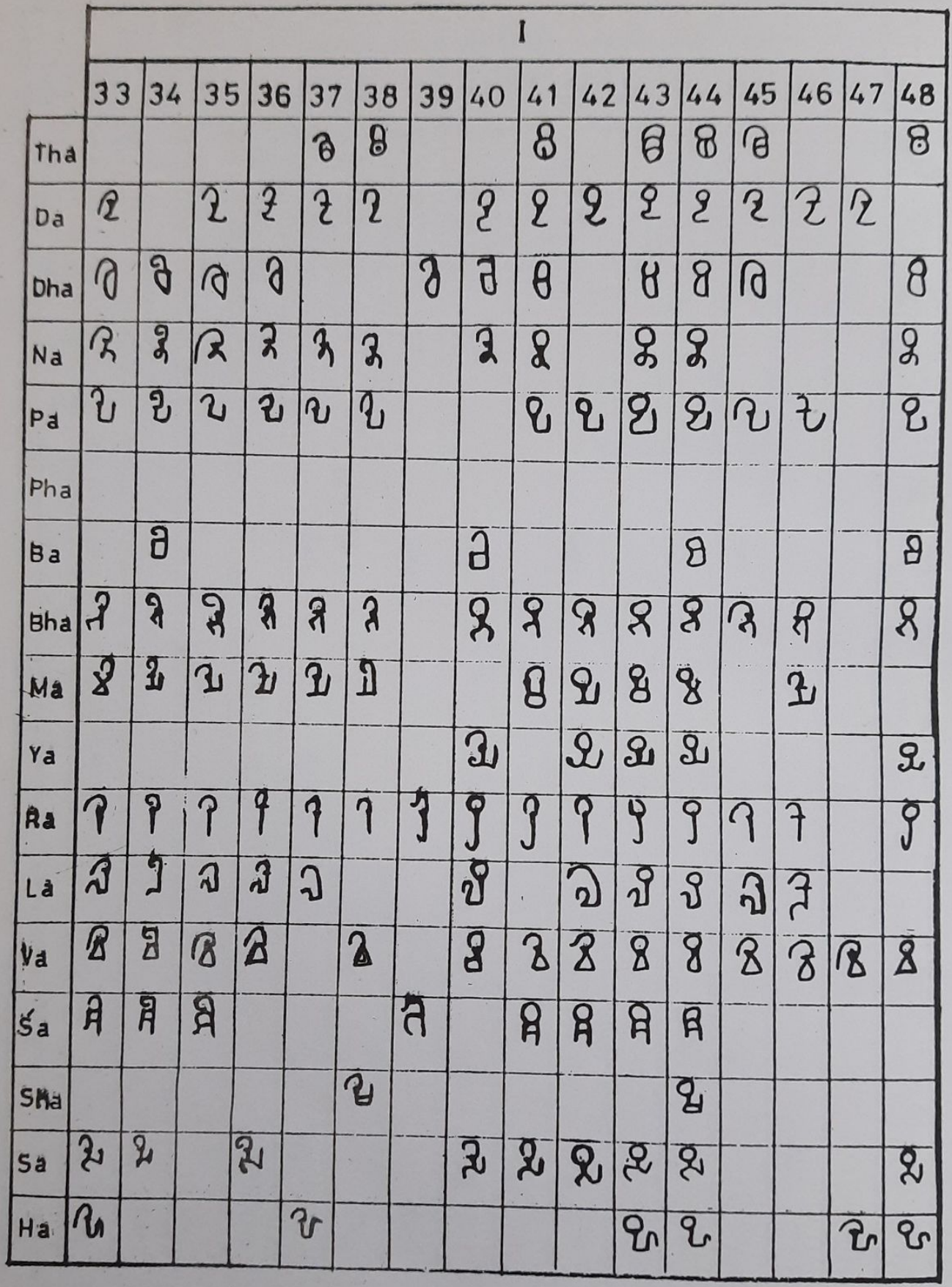
	A															
	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Vowel																
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																

	A															
	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Tha																
Da																
Dha																
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra																
La																
Va																
Śa																
Sha																
Sa																
Ha																

	Ā															
	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Vowel																
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																

	Ā															
	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Tha																
Da																
Dha																
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra																
La																
Va																
Śa																
Shа																
Sa																
Ha																

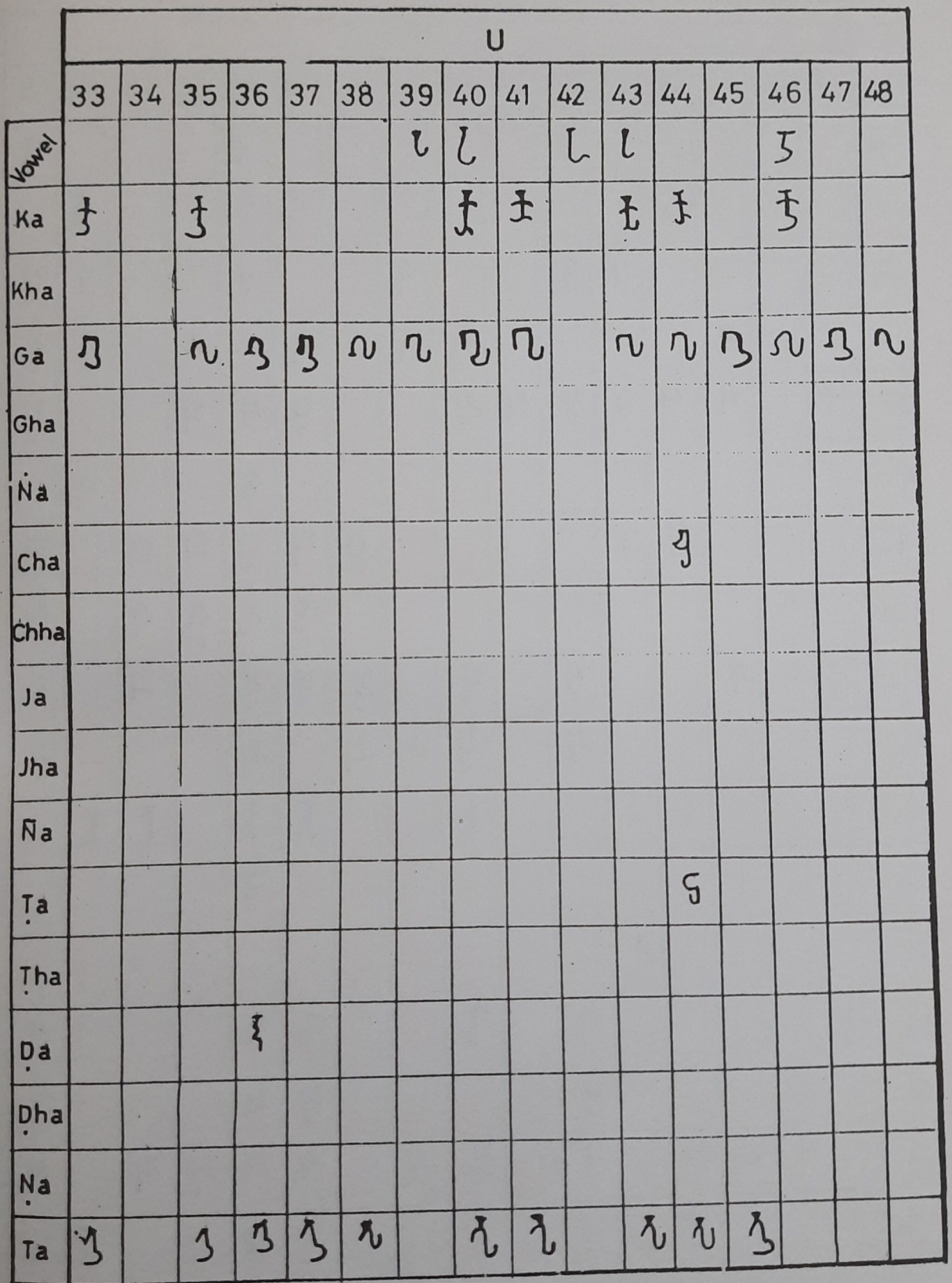
	I															
	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Vowel																
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																


I
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
Tha
Da
Dha
Na
Pa
Pha
Ba
Bha
Ma
Ya
Ra
La
Va
Śa
Sha
Sa
Ha

Vowel	ī															
	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																

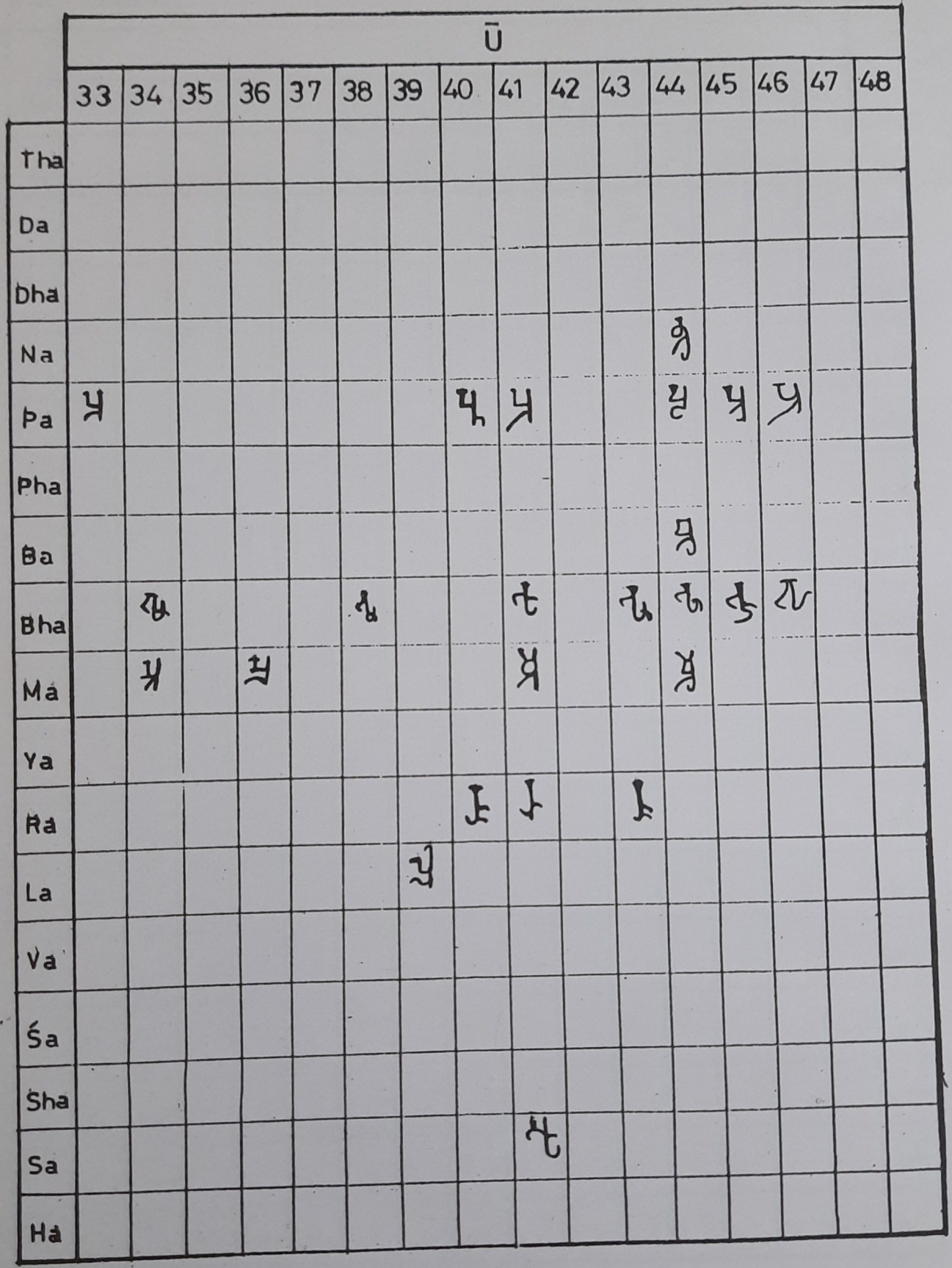
ī

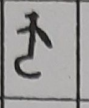
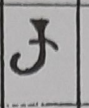
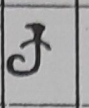
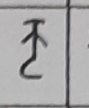
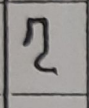
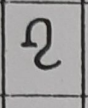
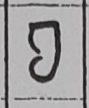
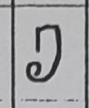
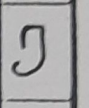
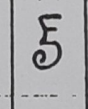
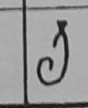
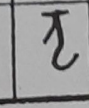
	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Tha																
Da																
Dha																
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra																
La																
Va																
Śa																
Sha																
Sa																
Ha																


U
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
Vowel
Ka
Kha
Ga
Gha
Ṅa
Cha
Chha
Ja
Jha
Ña
Ṭa
Ṭha
Ḍa
Ḍha
Ṇa
Ta

	U															
	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Tha																
Da																
Dha																
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra																
La																
Va																
Śa																
Sha																
Sa																
Ha																

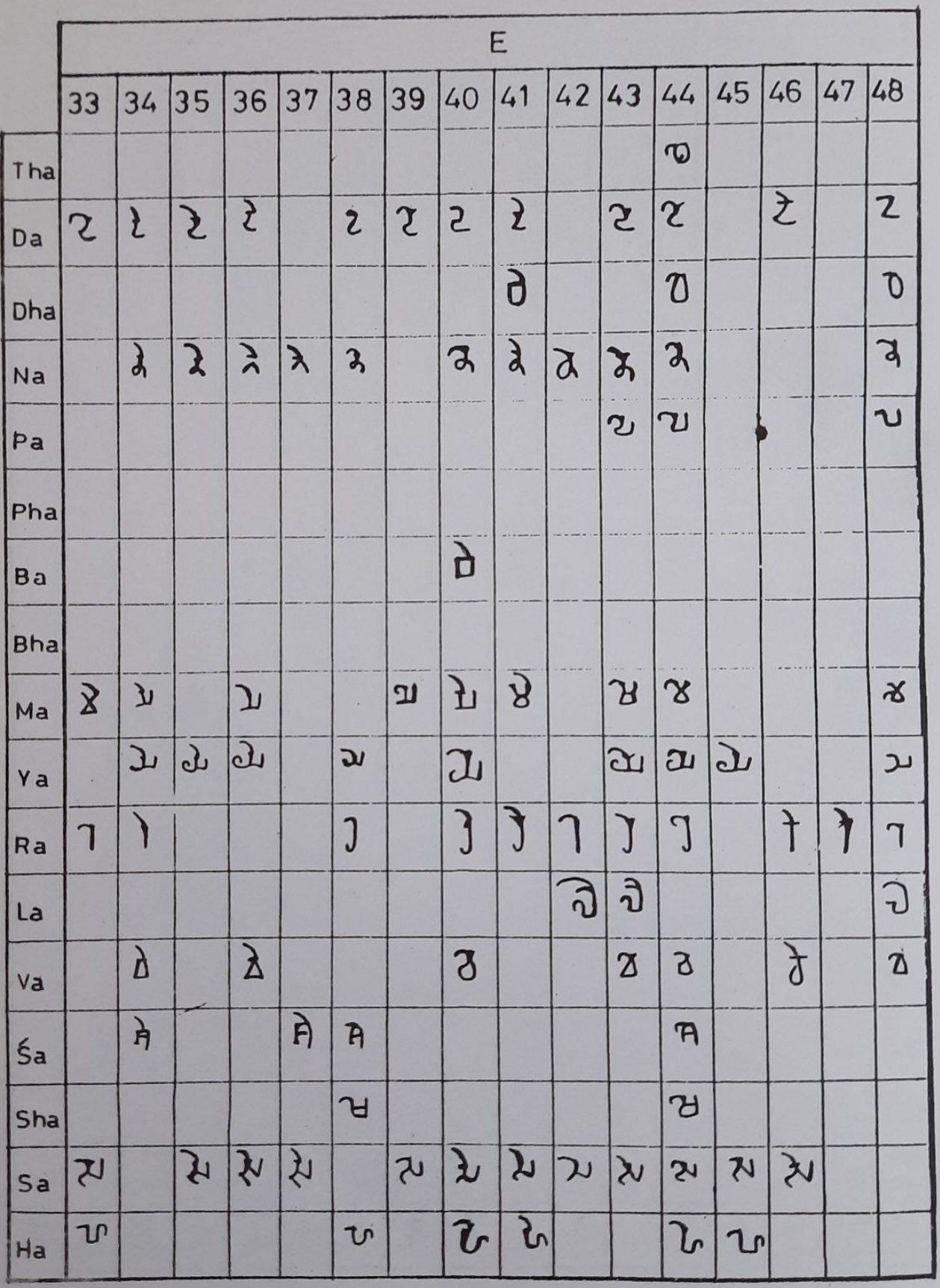
Vowel	Ū															
	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																


ū
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48
Tha
Da
Dha
Na
Pa
Pha
Ba
Bha
Ma
Ya
Ra
La
Va
Śa
Sha
Sa
Ha

Vowel	ṚI															
	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																

	ṚI															
	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Tha																
Da																
Dha																	
Na																	
Pa																	
Pha																
Ba																	
Bha																	
Ma																
Ya																
Ra																
La																
Va																
Śa																
Sha																
Sa																
Ha																

Vowel	E															
	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																


E
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
Tha
Da
Dha
Na
Pa
Pha
Ba
Bha
Ma
Ya
Ra
La
Va
Śa
Sha
Sa
Ha

Vowel	A I															
	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																	
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																

	AI															
	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Tha																
Da																
Dha																
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Yá																
Ra																
La																
Va																
Śa																
Sha																
Sa																
Ha																

Vowel	O															
	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																

	O															
	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Tha																
Da																
Dha																
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra																
La																
Va																
Śa																
Sha																
Sa																
Ha																

Vowel	AU															
	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																

	AU															
	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Tha																
Da																
Dha																
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra																
La																
Va																
Śa																
Sha																
Sa																
Ha																

ANUSVĀRA

Vowel	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																

	ANUSVĀRA															
	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Tha																
Da																
Dha																
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra																
La																
Va																
Śa																
Sha																
Ṣa																
Ha																

Vowel	VISARGA															
	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta																

VISARGA

	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Tha																
Da																
Dha																
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra																
La																
Va																
Śa																
Sha																
Sa																
Ha																

LIGATURES

Vowel	33				34				35				36			
Ka	Kta	Kla			ktra	kshi			Kya				kKra	ksha		
Kha																
Ga	gra				gra				gra	gyām			gna		gra	
Gha													ghno			
Ṅa					ṅge								ṅna			
Cha	chcha	chchha											chchha	chyaṁ		
Chha																
Ja		jya														
Jha																
Ña					ñcha											
Ṭa	ṭṭā															
Ṭha																
Ḍa																
Ḍha									ḍḍhyā							
Ṇa	ṇya															
Ta	tkhya	tpa	tra	tsa	tna		tsṛ			tvā					tma	

LIGATURES

	33				34				35				36			
Tha																
Da	dda	dha	dya	dra							dvi				dmā	
Dha																
Na	nta	ndra	nna				ndho		nni		npu	nmā				nya
Pa	pta	pyā	pra													
Pha																
Ba													brā			
Bha					bhra								bhyā			
Ma	mbo	myam							mbi							
Ya									yya							
Ra	rtta	rtha	rma	ryyā	rggā	rijji		rdda		rvva			rkka		rdha	rmmo
La													lgu	lya		
Va	vyā													vva		
Śa	śri	śva											sche	śmyā		
Sha	shthe	shya			shṇo	shvā										
Sa	skā	sya	sva		sthi				sta							
Ha					hli	hve							hmo			

Plate XLVIIIc

	LIGATURES															
	33				34				35				36			
Vowel																
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta													[illegible]	[illegible]		

	LIGATURES															
	33				34				35				36			
Tha																
Da													[illegible]	[illegible]		
Dha																
Na					[illegible]	[illegible]	[illegible]									
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra					[illegible]	[illegible]	[illegible]						[illegible]	[illegible] rya	[illegible]	[illegible] rhā
La																
Va																
Śa																
Sha																
Sa													[illegible] sri			
Ha																

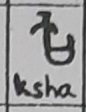
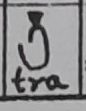
LIGATURES

Vowel	37				38				39				40			
Ka	ktyā	ksha			kkra										kri	kle
Kha													khyā			
Ga																
Gha																
Ṅa	ṅgi	ṅśa			ṅkrā	ṅgra	ṅha						ṅ	ṅgha		
Cha													chcha	chchā		
Chha																
Ja					jya								jña	jva		
Jha																
Ña													ñcha			
Ṭa													ṭṭā			
Ṭha																
Ḍa																
Ḍha																
Ṇa	ṇyam															
Ta	tpu	tra	tvā	tsa	tta	tna										tya

LIGATURES

	37				38				39				40			
Tha																
Da	ddha	dra				dyā								dbha	dra	
Dha													dhra			
Na					nta	nya				ntyā	ndra					ndyā
Pa	pta	pra				pmā										
Pha																
Ba					bda								bra			
Bha					bhra								bhyā			
Ma													mra			
Ya																
Ra	rtha	rva	rsha		rṭṭi	rṇṇa		rmma	rppa	ryya	rha		rddi			
La					lkā	lyaḥ										
Va					vyā	vra										
Śa	śca	śre								śrī					śva	
Sha	shṭa	shva	shva			shva			shpa							
Sa	sta	sma	sya		skr		sthi								spha	smi
Ha													hma			

LIGATURES

Vowel	37				38				39				40			
Ka													 ksha			
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta													 tra	tsa		

LIGATURES

	37				38				39				40			
Tha																
Da																
Dha																
Na													ndra	nnā		
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra					ryya											
La																
Va																
Śa																
Sha																
Sa						ssa										
Ha																

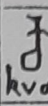
LIGATURES

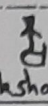
Vowel	41				42				43				44			
Ka	kte				ksha				kri	kkhyā						kla
Kha					khyā											
Ga	gra				gdi								gdha	gnaḥ		
Gha																
Ṅa	ṅga	ṅha							ṅkā		ṅsa					
Cha																
Chha													chya			
Ja					jva										jyo	
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa													ṇḍa	ṇyā		
Ta		ttra	tni	tyū					tku	thnyā		tma		ttha	lpa	

LIGATURES

	41				42				43				44			
Tha																
Da	ddha						dvā		dga							
Dhà	dhvi												dhra			
Na	ntc	ndye	ndra							nda					ndhu	
Pa																
Pha																
Ba													bdā			
Bha										bhro			bhya			
Ma	mno	mra								mpī		mthā	mra			m ri
Ya									yvā							
Ra			rdhu				rdru							rtthi	ddha	ntra
La													lpā	llhā	lla	
Va														vri		
Śa											śri			śca		
Ṣha					ṣṭā					ṣṭhā						
Sa		stri		ssa		svā				sma		sve	skā		stha	
Ha	hya												hma	hvi	hya	

Plate Lc





	LIGATURES															
	41				42				43				44			
Vowel																
Ka													kva	ksha		
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta															tsa	

LIGATURES

	41				42				43				44			
Tha																
Da																
Dha																
Na														nvo		
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra									rshu				rbha	rmu		
La																
Va																
Śa																
Sha													shva			
Sa									ssa					ssra		ssa
Ha																

LIGATURES

Vowel	45				46				47				48			
Ka													kto			
Kha																
Ga													gna	gyām	gram	
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa													ṇḍa	ṇya		
Ta			tyu											tpha		tya

LIGATURES

	45				46				47				48			
Tha																
Da	dbha	dra			dru				ddhaṁ					dmā	dro	
Dha	dhyaṁ															
Na		ndre			ndha	nne			nto	npā						nyā
Pa														pya		
Pha																
Ba																
Bha	bhyu															
Ma					myaṁ	mvā							mnā			
Ya																
Ra				rbhu			rvā		rggaṁ					rtthaṁ		rpa
La					lya											
Va									vya							
Śa	ścha						śrī									
Sha	shṭya	shṇu			shṭa	shṭhā							shṇu			
Sa		sthī												sma	sya	
Ha													hyā	hma		

LIGATURES

Vowel	45				46				47				48			
Ka																
Kha																
Ga																
Gha																
Ṅa																
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta									tsa							

LIGATURES

	45				46				47				48			
Tha																
Da																
Dha																
Na																
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra																
La																
Va																
Śa																
Sha																
Sa																
Ha																

COINS : SAMUDRAGUPTA

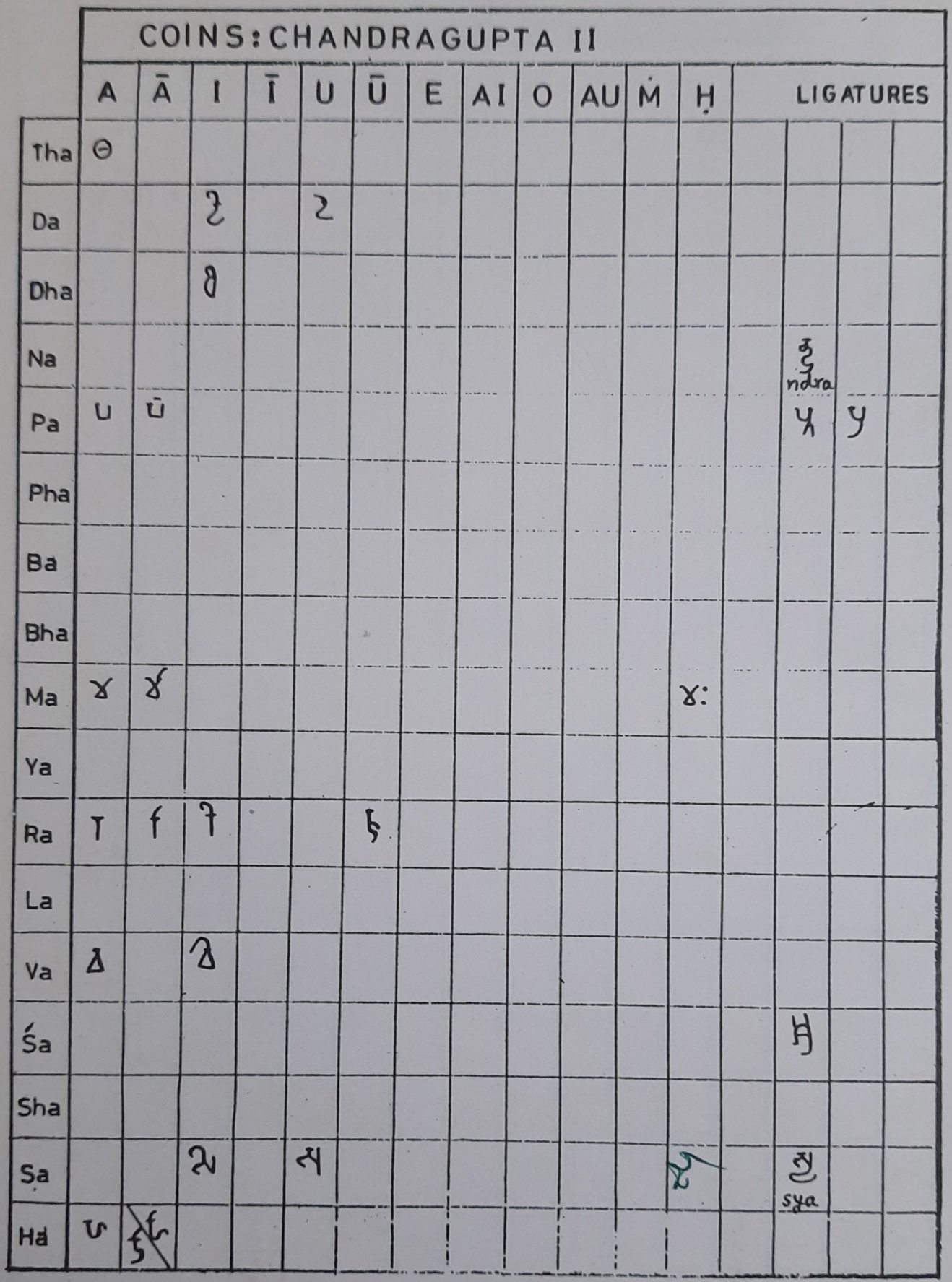
Vowel	A	Ā	I	Ī	U	Ū	Ṛ	E	AI	O	AU	Ṁ	Ḥ	LIGATURES		
Ka																
Kha																
Ga																
Gha														ghra		
Ṅa																
Cha														chchha		
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa																
Ḍha																
Ṇa																
Ta														tya	tta	

COINS : SAMUDRAGUPTA

	A	Ā	I	Ī	U	Ū	Ṛ	E	AI	O	AU	Ṁ	Ḥ	LIGATURES		
Tha																
Da														dra		
Dha																
Na														nta	ndra	
Pa														pta	pra	
Pha																
Ba																
Bha																
Ma																
Ya																
Ra														rya	rva	rma
La																
Va														vya		
Śa														śra	śva	
Sha																
Sa																
Ha																

COINS: CHANDRAGUPTA II

	A	Ā	I	Ī	U	Ū	E	AI	O	AU	Ṁ	Ḥ	LIGATURES		
Vowel															
Ka														Kshe	
Kha															
Ga															
Gha															
Ṅa													ṅha		
Cha															
Chha															
Ja	E											E:			
Jha															
Ña															
Ṭa															
Ṭha															
Ḍa															
Ḍha															
Ṇa															
Ta															


COINS: CHANDRAGUPTA II
A
Ā
I
Ī
U
Ū
E
AI
O
AU
Ṁ
Ḥ
LIGATURES
Tha
Da
Dha
Na
Pa
Pha
Ba
Bha
Ma
Ya
Ra
La
Va
Śa
Sha
Sa
Ha
ndra
sya

COINS: KUMARAGUPTA I

Vowel	A	Ā	I	Ī	U	Ū	Ṛ	E	AI	O	AU	Ṁ	Ḥ	LIGATURES		
	H/y															
Ka														ksha		
Kha																
Ga																
Gha														ghra		
Ṅa														kha		
Cha																
Chha																
Ja																
Jha																
Ña																
Ṭa																
Ṭha																
Ḍa														dgrah		
Ḍha																
Ṇa																
Ta														tva	tra	

COINS: KUMARAGUPTA I

	A	Ā	I	Ī	U	Ū	Ṛ	E	AI	O	AU	Ṁ	Ḥ	LIGATURES		
Tha																
Da																
Dha																
Na														ndra	nva	
Pa																
Pha																
Ba																
Bha																
Ma																
Ya																
Ra														rmā		
La																
Va																
Śa															śva	
Sha																
Sa														sva		
Ha																

COINS : SKANDAGUPTA

Vowel	A	Ā	I	Ī	U	Ū	E	AI	O	AU	Ṁ	Ḥ	LIGATURES
Ka													
Kha													
Ga													
Gha													
Ṅa													
Cha													
Chha													
Ja	E												
Jha													
Ña													
Ṭa													
Ṭha													
Ḍa													
Ḍha													
Ṇa													
Ta													tya

COINS : SKANDAGUPTA

	A	Ā	I	Ī	U	Ū	E	AI	O	AU	Ṁ	Ḥ	LIGATURES			
Tha																
Da																
Dha																
Na															nda	nvi
Pa															pta	
Pha																
Ba																
Bha																
Ma																
Ya																
Ra																
La																
Va																
Śa															śrī	
Sha																
Sa															ska	
Ha																

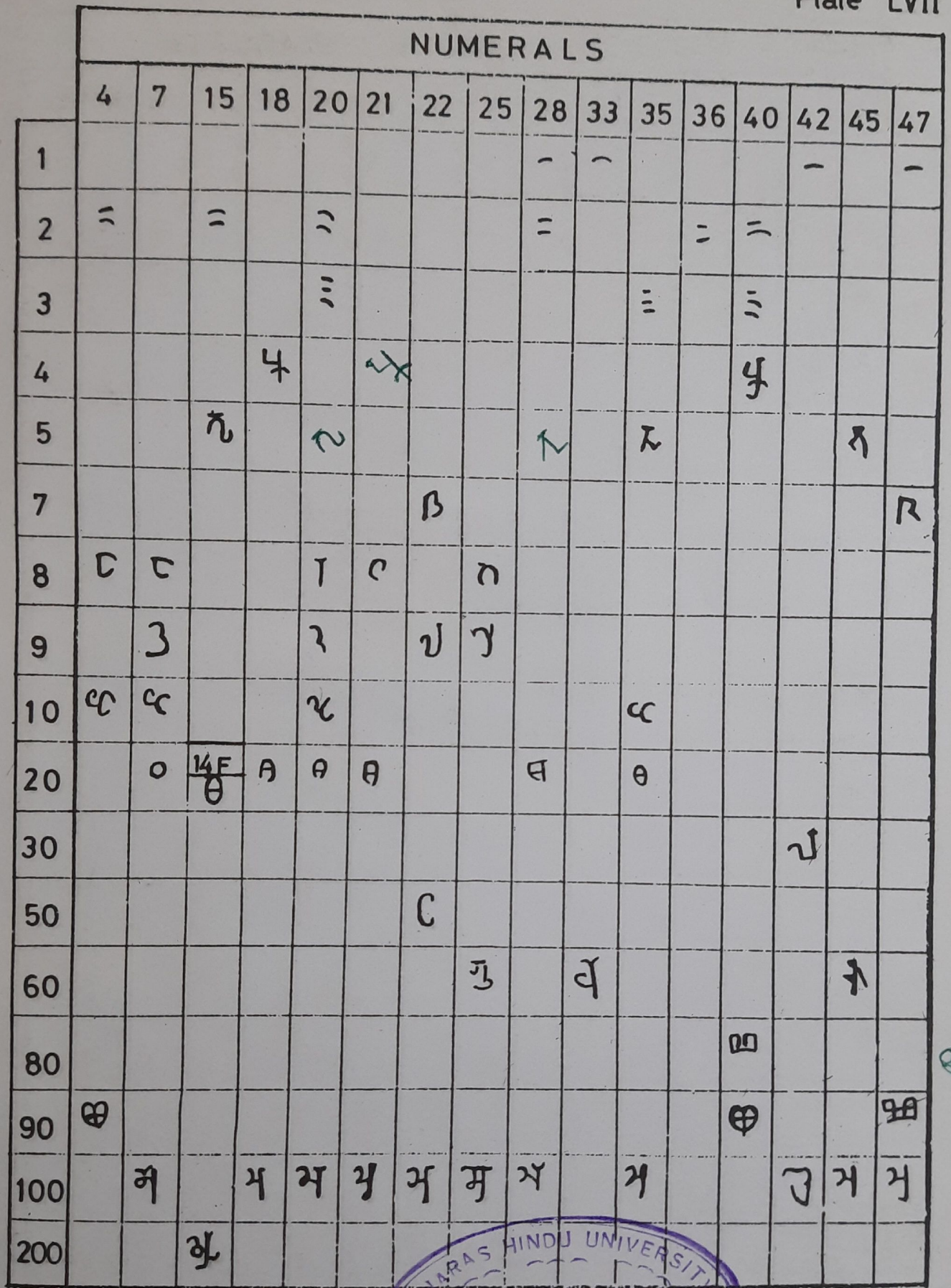
COINS: SUCCESSORS OF SKANDAGUPTA

Vowel	A	Ā	I	Ī	U	Ū	E	AI	O	AU	Ṁ	Ḥ	LIGATURES
Ka													Kra
Kha													
Ga													
Gha													
Ṅa													
Cha													
Chha													
Ja	E												
Jha													
Ña													
Ṭa													
Ṭha													
Ḍa													
Ḍha													
Ṇa													
Ta													tya

COINS: SUCCESSORS OF SKANDAGUPTA

	A	Ā	I	Ī	U	Ū	E	AI	O	AU	Ṁ	Ḥ	LIGATURES	
Tha														
Da													dvā	
Dha														
Na													ndrā	nya
Pa													pta	pra
Pha														
Ba														
Bha														
Ma														
Ya	/													
Ra														
La														
Va														
Śa													śrī	
Sha													shṇu	
Sa														
Ha														

NUMERALS



BANARAS HINDU UNIVERSITY
ACC. NO. 92172
DATE

V2:720bP
N8S;2
921972
BHU LIBRARY

SAYAJIRAO GAEKWAD LIBRARY
CENTRAL LIBRARY
Banaras Hindu University, Varanasi

921972

Prof. T.P. Verma (Retired) served as Reader in the Banaras Hindu University and as Professor in the Gurukul Kangari University. He also served as Principal in the D.A.V. Degree College, Varanasi. Dr. Verma produced 18 Ph. D. students. He is the author of more than a dozen books and over a hundred research articles. He is a reputed palaeographist and has developed a new system of preparing palaeographic tables, working on the time of which more than half a dozen scholars obtained their Ph. D. degree under his supervision. He was the General Secretary of the Numismatic Society of India and edited the Journal of the Society for 10 years and was its Chief Editor for 3 years. He also edited 3 volumes of the Journal of the Bharatiya Itihasa Sankalan Samiti, Uttar Pradesh. He edited the first volume of Sri Ram Visvakosa. Dr. Verma is associated with more than a dozen academic Societies and many social organisations,

Rs. : 950